Learning Outcomes-based Curriculum Framework (LOCF) for Post-graduate Programme

M.A. Archaeology

(Syllabus effective from 2020 Admission onwards)

UNIVERSITY OF KERALA

2020

UNIVERSITY OF KERALA
Syllabus for M.A. Archaeology

Programme Specific Outcomes (PSO) for M.A. Archaeology

PSO 1 Understand historical development of human culture approaching through the material remains of the past.

PSO 2 Understand relationships between humans and environment and their impacted development on human culture in different ecological zones.

PSO 3 Comprehend the major theoretical perspectives and debates within archaeology focussing how they have affected our views of the past and how they can be applied to research in the field.

PSO 4 Investigate the formation of archaeological records and acquire skills to conduct archaeological excavation dealing with how to record, investigate, analyze and interpret archaeological remains.

PSO 5 Identify and distinguish the steps involved in carrying out quantitative and qualitative research using available library and internet resources besides primary materials like literary, historical and archaeological sources.

PSO 6 Gain an overview of major developments in human history, including basic sciences and technologies with the help of archaeological sources.

PSO 7 Understand the origin and development of complex societies, agricultural systems, knowledge systems, art and architecture.

PSO 8 Understand the current theoretical debates across the dimensions of Archaeology, Civilization and Religion in the context of South Asia.

PSO 9 Fathom deep the past to understand the rich cultural and artistic heritage of India.

PSO 10 Protect the rich heritage objectively and conserve the rich cultural elements of the country scientifically for the posterity.

Programme Structure of M.A. Archaeology

Semester	Course Code	Name of the course	Core Courses (CC)	Discipline-Specific Elective (DE)	Generic Course (GC)	Skill Enhancement Elective (SE)	Credits
I	ARC-CC-511	Principles and Methods in Archaeology	+				4
	ARC-CC-512	World Prehistory	+				4
	ARC-CC-513	Indian Prehistory	+				4
	ARC-CC-514	Ancient Indian History	+				4
II	ARC-CC-521	Proto History	+				4
	ARC-CC-522	Early Iron Age of India	+				4
	ARC-CC-523	Early Indian Art	+				4
	ARC-CC-524	Indian Architecture	+				4
III	ARC-CC-531	Research Methodology	+				4
	ARC-CC-532	Ancient Indian Iconography	+				4
	ARC-CC-533	Archaeology of Kerala	+				4
	ARC-DE-534	Heritage and Museum Management		+			4
	ARC-DE-535	Pottery and Ceramics		+			4
	ARC-DE-536	Zooarchaeology in Practice		+			4
IV	ARC-CC-541	Palaeography and Epigraphy	+				4
	ARC-CC-542	Ancient Indian Numismatics	+				4
	ARC-CC-543	Dissertation	+				6
	ARC-DE-544	Science in Archaeology		+			4

	ARC-DE-545	Field Archaeology (Explorations and Excavations)		+			2
	ARC-DE-546	Field Archaeology (Study Tour of Monuments)		+			2
Any semester (I-IV)	ARC-GC-501	Introduction to Archaeology			+		2
	ARC-GC-502	Human Origin and Evolution			+		2
Any semester (I-IV)	ARC-SE-501	Essential Computer Applications for Archaeology				+	4

SEMESTER I	Course Code: ARC-CC-511	Credits: 4

NAME OF THE COURSE: PRINCIPLES AND METHODS IN ARCHAEOLOGY

Course Outcomes:
CO1. Familiarize the aim, scope, and evolution of Archaeology
CO2. Understand the history of Indian Archaeology
CO3. Identify the relationship between archaeology and other disciplines
CO4. Understand the data retrieval techniques in archaeology
CO5. Categorize artifacts and Eco-facts
CO6. Demonstrate Post excavation analysis, recording and interpretation of data
CO7. Evaluate the dating methods in Archaeology
CO8. Analyse the conservation and preservation methods in Archaeology

COURSE CONTENT

Module I:
Archaeology- Definition, aim, scope and evolution.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarize the aim, scope, and evolution of Archaeology (Remember, Understand)

Module II:
History of Indian archaeology.
Relationship of Archaeology with Social and Natural Sciences.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the history of Indian Archaeology (Understand)
MO2: Identify the relationship between archaeology and other disciplines (Understand)

Module III:
Retrieval of Archaeological data: techniques of exploration, excavation, Experimental Archaeology, Ethnography and Ethno-archaeology and Simulation. Recording.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the data retrieval techniques in archaeology (Understand)

Module IV:
Post excavation analysis and interpretation of data – Artifact Analysis and Geoarchaeological, Archaeo-zoological, Archaeo-botanical and bioanthropological approaches. Preparation of reports.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Categorize artifacts and Eco-facts (Analyse)
MO2: Demonstrate Post excavation analysis, recording and interpretation of data (Apply)

Module V:
Chronology or dating: Relative: Stratigraphy, Typology, Seriation, Cross-dating, Rock Surface Weathering Dating, Obsidian Hydration Dating, Pedogenesis, Relative Dating of Fossil Bone, Amino Acid Geochronology,

Chronometric dating: Radiocarbon Dating, Argon-Isotope Dating, Potassium-Argon Dating, Uranium Series Dating, Cosmogenic Nuclide Dating, Dating Using Short Lived Isotopes, Thermo-luminescence Dating, Optically Stimulated Luminescence Dating, Electron Spin Resonance Dating, Fission Track Dating, Dendrochronology, Varve Chronology, Lichenometry, Annual Layers in Glacier Ice, Annual Banding in Speleothems, Annual Banding in Corals, Annual Banding in Molluscs

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Evaluate the dating methods in Archaeology (Evaluate)

Module VI:
Aims and methods of conservation and preservation of archaeological remains.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Analyse the conservation and preservation methods in Archaeology (Analyse)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Practical
- Field work and survey (Outdoor)

LEARNING RESOURCES
References

- Agrawal, D. P. and M. D. Yadava. 1995. *Dating the Human Past*. Pune: Indian Society for Prehistoric and Quaternary Studies.
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- Balme, Jane and Alistair Paterson. 2014. *Archaeology in Practice (A Student Guide to Archaeological Analyses)*. West Sussex: John Wiley and Sons Inc.

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- Gamble, Clive. 2008. *Archaeology the Basics.* New York: Routledge Taylor and Francis Group.
- Grant, Jim, Sam Gorin and Neil Fleming. 2002. *The Archaeology Coursebook: An Introduction to Study, Skills, Topics and Methods*. London and New York: Routledge.
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- McIntosh, Joyce. 2011. *Preservation and Archiving Challenges and Solution*s. Oakville: Apple Academic Press.
- Metcalf, Peter. 2005. *Anthropology the Basics.* London and New York: Routledge Taylor and Francis Group.
- Miller, Heather Margaret-Louise. 2009. *Archaeological Approaches to Technology*. Walnut Creek: Left Coast Press Inc.
- Nair, S. M. 2011. *Bio-deterioration of Museum Materials*. Delhi: Agam Kala Prakashan.
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- Renfrew, Colin and Paul Bahn. (Eds.). 2005. *Archaeology the Key Concepts*. London and New York: Routledge Taylor and Francis Group.
- Shaw, Ian, and Robert Jameson (Eds.).1999. *A Dictionary of Archaeology*. Oxford: Blackwell Publishers Limited.
- Walker, Mike. 2005. *Quaternary Dating Methods*. West Sussex: John Wiley and Sons Limited.

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-511: Principles and Methods in Archaeology

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. Whether Horizontal excavation or Vertical excavation is more fruitful? Express your Views.
2. What is your opinion about the applications of techniques used in Natural Sciences in Archaeology?
3. Explain the principles of Argon-Isotope Dating and Potassium-Argon Dating?

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. Evaluate the significance of Archaeology in modern world?
5. Explain the conservation techniques of metal objects?
6. Express your views about the role of Archaeological Survey of India in Archaeological researches in India?
7. Whether radiocarbon technique is suitable to date objects older than fifty thousand years. Present your views
8. Present your views about the structural conservation techniques used in modern India?
9. How would you collect archaeozoological and archaeobotanical samples from an excavation context?

SECTION C (Short Notes)

Answer Any Three **(3x5=15 Marks)**

10. Distinguish between Ethnography and Ethnoarchaeology
11. How would you differentiate ancient and modern pits in an excavation?
12. How would you collect samples for TL dating?
13. What is your opinion about the use of relative dating techniques in Archaeology?
14. Whether Sr. Mortimer Wheeler transformed Indian Archaeology or not? Express your views.
15. Simulation is very useful in the study of ancient sites. Validate the statement with proper description.

SEMESTER I	Course Code: ARC-CC- -512	Credits: 4

NAME OF THE COURSE: WORLD PREHISTORY

Course Outcomes:

CO 1: Understands the various concepts of Pre historic world.

CO2: Identify the geological, biological and cultural dimensions of man.

CO3: Get familiarize with the Pleistocene and Holocene- environmental and climatic changes.

CO4: Get an understanding of the main stages of human evolution and important fossil records.

CO5: Acquire basic knowledge about the Stone - age tools.

CO6: Get an overview of the various prehistoric sites across Europe, Africa, Neolithic sites of Near East, and Pakistan.

COURSE CONTENT

Module I:

Geological formation of Earth. Geological, biological and cultural dimension of man. Quaternary period: Pleistocene and Holocene- environmental and climatic changes. Rock cycle and its formation – Igneous Metamorphic and Sedimentary. Pleistocene flora and fauna, main stages of human evolution and various theories and recent discoveries of fossil records.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an outline of the geological formation of earth (Understand, Analyse, Evaluate)

MO2: Understand the biological and cultural dimensions and development of man through the ages. (Understand, Analyse, Evaluate)

MO3: Identify the Pleistocene and Holocene of the Quartenary period and the environmental and climatic changes in it. (Understand, Analyse, Evaluate, Apply)

MO4: Get an overview of the major rock cycles and the formation of Igneous, Metamorphic and Sedimentary rocks. (Understand, Apply, Analyse, Evaluate)

MO5: Acquainted with the Pleistocene flora and fauna and identify the main stages of human evolution, various theories about it and recent discoveries of fossil records across the world. (Understand, Apply, Analyse, Evaluate)

Module II:

Evolution of Stone Age tools. Typo-technology of Stone Age.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get a basic knowledge about the Stone tools and its different typo technologies. (Understand, Apply, Analyse, Evaluate, Create)

MO2: Acquire the basic skill set to identify different Stone Age tools (Understand, Apply, Analyse, Evaluate)

Module III:
Prehistory of Europe - Paleolithic to Neolithic culture and Prehistoric Art.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Get an overview and understanding about the prehistory of Europe. (Understand, Analyse, Evaluate)
MO2: Identify the various Paleolithic to Neolithic sites across Europe. (Understand, Analyze, Evaluate)
MO3: Acquire a basic understanding about the Prehistoric art. (Understand, Apply, Analyse, Evaluate)

Module IV:
Prehistory of Africa -Paleolithic to Neolithic. Northern zone - Mediterranean Coast to south of Saharan Plateau. West /Central zone – west of Rift valley, Eastern zone - Rift valley, Southern zone - Angola to southern tip.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Get an outline about the prehistory of Africa, from Paleolithic to Neolithic. (Understand, Analyse, Evaluate)
MO2: Understands the various sites across Northern zone - Mediterranean Coast to south of Saharan Plateau. (Understand, Analyse, Evaluate)
MO3: Acquainted with the sites across the West /Central zone – west of Rift valley, Eastern zone - Rift valley, Southern zone - Angola to southern tip. (Understand, Analyze, Evaluate)

Module V:
Neolithic of Near East evidence from – Jericho, Jerome and Catalhuyuk

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Get an overview of the Neolithic sites across the Near East, from Jericho, Jerome and Catalhuyuk (Understand, Analyse, Evaluate)

Module VI:
Neolithic of Pakistan evidence from Mehrgarh and Kili Gul Muhammad.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understands the sites of Neolithic of Pakistan and analyse and evaluate the various evidences from Mehrgarh and Kili Gul Muhammad (Understand, Analyse, Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities
- Tutorials
- Assignments

- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES:

References

- Andrews, Peter and Chris stringer. 2005. *The complete world of Human evolution*. London: Thames and Hudson.
- Bahn, G. Paul. 1998. *Prehistoric Art*. Cambridge: University Press.
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Online sources

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https://humanorigins.si.edu/education/introduction-human-evolution

https://geology.com/time.htm
http://www.kulib.in/infonet.html
https://academic.oup.com/journals/
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https://www.nature.com/
https://www.academia.edu/
https://www.jstor.org/
https://shodhganga.inflibnet.ac.in/
https://epathshala.nic.in/

ASSESSMENT

40% Continuous / Formative Assessment.
60% End-semester/Summative Assessment: 3 hour written Exam

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-512 World Prehistory

Time: 3 Hrs

Max Marks: 60

Section A
Essay

1x15=15 Marks

Answer any one:

1. Briefly analyze the Early Stone Age cultures of South Africa
2. Give an exclusive analysis of the Pleistocene Ice ages and the expansion of Lower Palaeolithic cultures across Europe
3. Based on the recovered fossils, briefly evaluate the development of human evolution across the globe

Section B
Short Essay

3x10=30 Marks

Answer any three:

4. Evaluate the Neolithic cultures of South Africa
5. Give an appraisal on the Pleistocene flora and fauna with a brief analysis of Geological time scale
6. Provide an analysis of the cognitive progress of humans with the growth of Pleistocene art
7. Analyze and gave an evaluation on the typo technology of various Mesolithic tools around the world
8 Give a factual analysis on the Neolithic cultures of Pakistan
9. Briefly evaluate the Early Stone ages of East Africa

Section C
Short Notes

3x5=15 Marks

Answer any three:

10. Clarify the term Paranthropus
11. Distinguish between Pleistocene and Holocene
12. Defend the prominence of Lucy in the phylogeny of Human evolution
13. Judge the position of Altamira in the prehistoric art
14. Discriminate the factors which make Mousterian an important European prehistoric site
15. Give critical analysis about Natural selection

SEMESTER I	Course Code: ARC-CC-513	Credits: 4

NAME OF THE COURSE: INDIAN PREHISTORY

Course Outcomes:

CO1: Get a basic knowledge about the Paleo-environment during Stone Age in India especially from- Sohan, Narmada, Godavari and Kotlayar valleys.

CO2: Acquire an idea about the Typo-technology and raw materials of prehistoric tools.

CO3: Understand the Lower, Middle and Upper Paleolithic and Mesolithic cultures of India -distribution, environment, subsistence, art typo-technology of tools, art, chronology, evidences from important sites.

CO4: Gain knowledge about the Neolithic culture of India and evidences from various regions, important excavated sites and ash mound sites.

CO5: Acquire basic knowledge about the important excavated prehistoric sites in India

CO6: Analyze the Prehistoric Art in India - Typology, nature, techniques and main sites- Bhimbetka

COURSE CONTENT

Module I:

Rock structure of India. Paleo-environment during Stone Age in India evidences from - Sohan, Narmada, Godavari and Kotlayar valleys.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Understand the Rock structure of India (Understand, Analyze)

MO2: Analyze the Paleo-environment during the stone age of Sohan Valley (Understand, Analyze)

MO3: Get an idea about the Paleo-environment of the Narmada Valley during the period of stone age (Understand, Analyze)

MO4: Obtain a basic knowledge of the Paleo-environment during the stone age of Godavari Valley (Understand, Analyze)

MO5: Find the Paleo-environment during the stone age of Kotlayar Valley (Understand, Analyze)

Module II:

Typo-technology and raw materials of prehistoric tools.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Obtain a basic knowledge about the different types of prehistoric tools (Understand, Analyze, Apply)

MO2: Analyze the tool technology of the prehistoric period (Understand, Analyze, Apply)

MO3: Understand the raw materials used for making prehistoric tools (Understand, Analyze, Apply)

Module III:
A brief introduction to Lower Paleolithic, Middle Paleolithic, and Upper Paleolithic cultures of Indian subcontinent

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Get a basic knowledge about the Lower Paleolithic cultures of India (Understand, Apply, Analyze)
MO2: Understand the Middle Paleolithic culture of India (Understand, Apply, Analyze)
MO3: Acquire an idea about the Upper Paleolithic cultures of India (Understand, Apply, Analyze)

Module IV:
Mesolithic cultures of India (distribution, environment, typo-technology of tools, subsistence, art, chronology, recent discoveries and important sites).

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the distribution of Mesolithic cultures in India (Understand, Analyze)
MO2: Get a knowledge about the environment of India during the Mesolithic period (Understand, Analyze, Evaluate)
MO3: Analyze the typo-technology of stone tools during the Mesolithic period of India (Understand, Apply, Analyze)
MO4: Understand the subsistence pattern of Mesolithic cultures of India (Understand, Analyze, Evaluate)
MO5: Get an overview of the evidences of art during the Mesolithic period of India (Understand, Analyze, Evaluate)
MO6: Understand the chronology of Indian Mesolithic culture (Understand, Apply)
MO7: Get to understand the recently discovered Mesolithic sites in India (Understand, Analyze, Evaluate)

Module V:
Prehistoric Art in India - Typology, nature, techniques and main sites- Bhimbetka

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Analyze the Types of prehistoric art in India (Understand, Apply)
MO2: Obtain an idea about the nature of the Indian prehistoric art (Understand, Evaluate, Analyze)
MO3: Acquire a basic knowledge about the prehistoric art depicted in the caves of Bhimbetka (Understand, Evaluate, Analyze)

Module VI:
An introduction to Neolithic culture in India - Evidences from North, North-East, North-West and South. Excavated sites - Burzhahom, Gufkaral,Sangankallu, Tekkalakota, Hallur, Kodekal, Utnur. Ashmounds – issues, evidences and subsistence pattern.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an idea about the Neolithic cultures of India (Understand, Analyze)

MO2: Acquire a knowledge about the northern Neolithic culture of India (Understand, Evaluate, Analyze)

MO3: Understand the North-Eastern Neolithic cultures of India (Understand, Evaluate, Analyze)

MO4: obtain an idea about the North-western Neolithic cultures of India (Understand, Evaluate, Analyze)

MO4: Give a wide picture of the Southern Neolithic cultures of India (Understand, Evaluate, Analyze)

MO5: Familiarize some excavated Neolithic sites in India (Understand, Analyze)

MO6: Analyze the issues, evidences and subsistence pattern of Ashmounds (Understand, Analyze, Apply)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT

Suggested Learning Activities

- Assignments
- Seminar Presentation on selected topics
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES:

References

- Agrawal, D.P .1972. *Man and Environment through the Ages*. New Delhi: Books and Books.
- Allchin, B and Allchin, F.R.1982. *Rise of Civilization in India and Pakistan*. Cambridge: University Press.
- Setter, S and Ravi Korisettar. 2002. *Indian Archaeology in Retrospect- Prehistory Archaeology of South Asia.* Delhi: ICHR and Manohar.
- Singh, P. 1974. *Neolithic Cultures of Western Asia*. Vol.1.London: Seminar Press.
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- Jain, V.K. 2014. *Prehistory and Protohistory of India. An appraisal.* New Delhi: DK Print world.
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On-line Sources

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http;//www.kulib.in/infonet.html
http;//epathshala.nic.in/

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/ Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC- 513: Indian Prehistory

Max Marks: 60

Section A

Essay

1x15=15 Marks

Answer any one:

1. Evaluate and briefly analyze the salient features of Mesolithic cultures of India
2. Give an exclusive analysis of prehistoric art reflected in the cave paintings of Bhimbetka
3. Analyze the different types of prehistoric tools and its manufacturing technique existed in India

Section B
Short Essay

3x10=30 Marks

Answer any three:

4. Give a brief analysis of the Southern Neolithic culture of India
5. Elucidate the key elements in the Upper Paleolithic culture of India
6. Evaluate the Palaeo-environment that contributed in the development of various Stone Age cultures in India
7. Give a brief analysis of the prehistoric cultures of Sohan river valley
8. Give an assessment of the subsistence pattern existed in the Neolithic cultures in India
9. Analyze the prehistoric cultures of Narmada Valley

Section C
Short Notes

3x5=15 Marks

Answer any three:

10. Evaluate the prehistoric evidences at Langhnaj
11. Give a brief analysis about the Levallois tool technique
12. Asses the prehistoric features at Burzahom
13. Elucidate the prehistoric features at Bagor
14. Asses the contribution of H. D. Sankalia in Indian prehistory
15. Give an assessment about the site Gudiyam in Indian prehistory

SEMESTER I	Course Code: ARC-CC-514	Credits: 4

NAME OF THE COURSE: ANCIENT INDIAN HISTORY

Course Outcomes:

CO1: Get an overview of the various features of Indian physical Geography and understand about the various archaeological and literary sources.

CO2: Understand about the political conditions before and after the formations of Janapadas.

CO3: Get familiarize with the origin, philosophy and impact of Jainism and Buddhism.

CO4: Acquire basic knowledge about the Magadhan Imperialism and Mauryan period especially Chandragupta, Ashoka, and their administration and study the major causes of their downfall.

CO5: Get acquainted with the Post Mauryan rulers-Sunga, Kanva, Indo-Greek, Sakas, Pahalvas, Western Kshatrapas. Kushan Origin and Early History - Vikram and Saka Eras.

CO6: Familiarize with the political history and rulers of the Deccan- Satavahanas, Ikshvakus, Vakatakas.

CO7: Acquainted with the knowledge regarding the Gupta dynasty: Origin, growth, contributions, Huna invasions and its downfall. Harshavardan - his conquest, administration, religious policy.

CO8: Get an outline of the political dynasties in Deccan-Chalukyas of Badami, Rashtrakutas, Pallavas, Pandyas, Cholas and Hoysalas.

COURSE CONTENT

Module I:

Geography of India. (Mountain ranges, Great Plains of India, Plateaus, Drainage system of India, and Major passes.) Sources of history - Archaeology and Literary.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Acquire the basic understanding about the Geographical features of India. (Understand, Analyze, Apply, Evaluate)

MO2: Understand the impact of the physical features in the political history of India (Understand, Analyze, Apply, Evaluate).

MO3: Get an outline of the various sources which helps to remodel the history of India. (Understand, Analyze, Evaluate)

Module II:

Janapadas - Political conditions before and after their formations. Origin, philosophy and impact of Buddhism and Jainism. Persian and Greek invasions, rise of Magadhan Imperialism.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an overview of the political conditions before and after the formation of Janapadas. (Understand, Analyze, Evaluate)

MO2: Understands the origin, philosophy and impact of Buddhism and Jainism in the history of ancient India. (Understand, Analyze, Evaluate)

MO3: Get to identify and evaluate the impact of Persian and Greek invasions in the history of ancient India. (Understand, Analyze, Evaluate)

MO4: Acquainted with the origin and rise of Magadhan imperialism in the Indian subcontinent. (Understand, Analyze, Evaluate)

Module III:

Political history of Mauryan period - Chandragupta, Ashoka, Mauryan administration, cause of downfall. Political history of Post Mauryan period - Sunga, Kanva, Indo-Greek, Sakas, Pahalvas, Western Kshatrapas.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Acquire the basic knowledge about the political history of Mauryan dynasty. (Understand, Analyze, Evaluate)

MO2: Identify and acquainted with the various rulers in the Mauryan dynasty and understand its causes for downfall. (Understand, Analyze, Evaluate)

MO3: Understands the political history of the various dynasties existed in the post Mauryan period, especially the Sunga, Kanva, Indo-Greek, Sakas, Pahalvas, Western Kshatrapas. (Understand, Analyze, Evaluate)

Module IV:

Political history of Kushan dynasty. Political history of Deccan – Satavahanas and Ikshvakus.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Gain an outline on the political history and the impact made by the Kushan dynasty in the history of India. (Understand, Analyze, Evaluate)

MO2: Understands the political history of Deccan, especially of the Satavahanas and the Ikshvakus. (Understand, Analyze, Evaluate)

Module V:

Political history of the Gupta dynasty, Vakatakas and Huns. Harshavardan - his conquest, administration, religious policy.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Acquainted with the origin, evolution, development, major achievements and the reasons for the downfall of the Gupta dynasty and the arrival of Huns. (Understand, Analyze, Evaluate)

MO2: Understands the political development of the Vakataka dynasty**.**(Understand, Analyze, Evaluate)

MO3: Familiarize with the origin, evolution, conquest, administration and religious policy of Harshavardhan. (Understand, Analyze, Evaluate)

Module VI:

Political history of major dynasties in Deccan and South India –Chalukyas of Badami, Rashtrakutas, Pallavas, Cholas, Pandyas, Hoysalas and Vijayanagara.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Understand the development of political history of Chalukyas of Badami. (Understand, Analyze, Evaluate)

MO2: Get familiarize with the political, socio- cultural and artistic developments in the time of Rashtrakuta dynasty. (Understand, Analyze, Evaluate)

MO3: Acquainted with the political and socio cultural impact of Pallavas in the history of South India. (Understand, Analyze, Evaluate)

MO4: Get an outline of the political history of Cholas and Pandyas. (Understand, Analyze, Evaluate)

MO5: Familiarize with the political history and cultural developments under the Hoysalas and the Vijayanagara. (Understand, Apply, Analyze, Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT

Suggested Learning Activities

- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz

LEARNING RESOURCES:

References

- Basham, A. L . 1997. *The Wonder that was India*. New delhi: Rupa and Co.
- Basham, A.L. (Ed).20113. *A cultural history of India*. New delhi: Oxford University Press.
- Chakrabarti, Dilip K. 2010. *The Ancient Routes of the Deccan and the Southern Peninsula.* New delhi: Aryan Books International.
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- Sastri,K A Nilakanta. 2008. *A History of South India. From Prehistoric times to the fall of Vijayanagar.* New delhi: Oxford University Press.
- Singh, Upinder. 2009. *A history of Ancient & Early Medieval India: From the stone age to the 12th century.* New Delhi: Pearson.
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https://www.jstor.org/
https://shodhganga.inflibnet.ac.in/
https://www.ancient.eu/article/294/the-history-of-ancient-india/
https://www.doaj.org/
http://www.kulib.in/infonet.html
https://epathshala.nic.in/

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-514: Ancient Indian History

Max Marks: 60

Time: 3 Hrs

Section A
Essay

1x15=15 Marks

Answer any one:

1. Gupta empire is regarded as the Golden age of ancient Indian history. Critically evaluate the statement
2. Explain briefly the archaeological and literary sources used for the reconstruction of ancient Indian history
3. Discuss and analyse the development and philosophical aspects of Buddhism and Jainism in ancient India

Section B
Short Essay

3x10=30 Marks

Answer any three:

4. Give an evaluation of the republics in the pre Mauryan period and discuss the factors which led to the Magadhan imperialism
5. Critically analyse to what extent does the geographical feature contribute to the formulation of ancient Indian History?
6. Examine the salient features of the Vakataka dynasty
7. Briefly evaluate the historical and cultural significance of Chola dynasty?
8. Elucidate the development of Mauryan dynasty and briefly analyse its administration
9. Trace and analyze the origin and development of Satavahanas of Deccan

Section C
Short Notes

3x5=15 Marks

Answer any three:

10. Give details about the contribution of Fa- hein
11. Evaluate the importance of Kushans in the formulation of Indian history
12. Critically examine the Pandyan dynasty
13. Your Judgment of Harshavardhana as a great conqueror.
14. Do you believe the Alexandar's invasion change the course of Indian history? If so why?
15. Evaluate the inference of Vedic literature on ancient Indian history

SEMESTER 2	Course Code: ARC-CC-521	Credits: 4

NAME OF THE COURSE: PROTO HISTORY

Course Outcomes:

CO1. Understand the first urbanization in Indian subcontinent
CO2. Categorize Classical Harappan and Regional Chalcolithic Cultures in Greater Indus Region
CO3. Apply material culture for the construction of Indian History during Indus Age
CO4. Analyse the features of Harappan town planning
CO5. Familiarize the Harappan trade, script, religion, arts and craft, and burials
CO6. Evaluate the Harappan and regional Chalcolithic artefacts and arrive at logical interpretations
CO7. Understand the factors of decline of Indus Civilization and its Legacy

COURSE CONTENT

Module I

Indus Civilization- Terminology, History of Discovery, Origin, extent, chronology.

Module Outcome:

After Completion of this module, the student should be able to:
MO1: Understand the Origin, extent and chronology of Indus Civilization (Understand)

Module II:

Pre Urban Harappan Phase: Bhurj Basket Marked Phase, Togau Phase, Kechi Beg Phase, Hakra Ware Phase, Amri-Nal Phase, Kot Dijian Phase, Sothi-Siswal Phase, Damb Sadaat Phase

Module Outcome:

After Completion of this module, the student should be able to:
MO1: Categorize the Pre Urban Harappan Cultures in Greater Indus Region (Analyse)

Module III:

Urban Harappan Phase: Sindhi Harappan, Kulli Harappan, Punjabi Harappan, Quetta Phase, Late Kot-Diji Phase

Module Outcome:

After Completion of this module, the student should be able to:
MO1: Categorize the Urban Harappan Cultures Indian Subcontinent (Analyse)

Module IV:

Indus Civilization: Factors of urbanization, Town Planning, trade, script, religion, Burials, arts and craft, Decline and Legacy

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Analyse the features of Harappan town planning (Analyse)
MO2: Familiarize the Harappan trade, script, religion, arts and craft, and burials (Understand)
MO3: Understand the factors of decline of Indus Civilization and its Legacy (Understand)

Module V:
Post Urban Harappan Phase: Jhukar, Early Pirak, Cemetery H, Late Harappan in Punjab, Haryana, Uttar Pradesh and Gujarat, Early Gandhara Grave Culture, Copper Hoard and OCP.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Categorize the Post Urban Harappan Cultures in Greater Indus Region (Analyse)

Module VI
Regional Chalcolithic Cultures in Western and Central India: Anarta, Pre-prabhas, Padri, Black and Red Ware, Reserved Slip Ware, Micaceous Red, Sorath Harappan, Prabhas Ware, Lustrous Red Ware, Ahar, Kayatha, Malwa, Savalda, Jorwe.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Categorize Classical Harappan and Regional Chalcolithic Cultures in Greater Indus Region (Analyse)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Practical
- Field work and survey (Outdoor)

LEARNING RESOURCES
References

- Agrawal, D. P. and J. S. Kharakwal. 2003. *Bronze and Iron Ages in South Asia (Archaeology of South Asia II).* New Delhi: Aryan Books International.
- Ajithprasad, P. 2008. Jaidak (Pithad): a Sorath Harappan site in Jamnagar district, Gujarat and its architectural features. In T. Osada and A. Uesugi (eds.). *Occasional Paper 4 (Linguistics, Archaeology and the Human Past- Indus Project)*: 83-99. Kyoto: Research Institute for Humanity and Nature.
- Allchin, B. and F. R. Allchin. 1982. *The Rise of Civilization in India and Pakistan*. Cambridge: Cambridge University Press.
- Asthana, Sasi.1985. *Pre-Harappan Cultures and Borderlands.* New Delhi: Books and Books.

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- Possehl, G. L. 1999. *Indus Age: The Beginnings*. Philadelphia: University of Pennsylvania Press.
- Possehl, G. L.1993. *Harappan Civilization*. Delhi: Oxford and IBH.
- S. Setter and R. Korisetter (eds.). 2002. *Indian Archaeology in Retrospect Volume II Protohistory- Archaeology of the Harappan Civilization*: 129-158. New Delhi: Manohar Publishers and distributors.
- Sankalia, H. D. 1974. *The Prehistory and Protohistory of India and Pakistan*. Pune: Deccan College Postgraduate and Research Institute.

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-521: Proto History

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. Write in your words about the characteristic features of Chalcolithic Cultures in Deccan and its relationship with the Harappans
2. Mehrgarh is the only site in Indian subcontinent which provide continuous habitation record from Neolithic to the end of Urban Harappan Phase. Validate the statement.
3. Discuss the salient features of Classical Harappan and other Regional Chalcolithic Cultures in Greater Indus Region

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. Critically evaluate the features of Kechi Beg Phase
5. Discuss about the multiple levels of Indus Trade
6. Analyse the role of Arts and Crafts in Indus Society
7. Explain the history of discovery, origin, extent and chronology of Indus Civilization
8. Evaluate the Chalcolithic cultures in Anarta, Lata, Kachchha and Saurashtra regions
9. How would you connect the Chalcolithic Cultures in Rajasthan and Madhya Pradesh to Indus Civilization

SECTION C (Short Notes)

Answer Any Three **(3x5=15 Marks)**

10. How would you assess the Regionalization Era in Indus Age
11. Unicorn is a mythical animal. What do you think?
12. Our Idea about Indus Religious Institutions are not clear. Validate the statement
13. Express your views on the Black and Red Ware
14. Evaluate the Rangpur Sequence based on data from excavated sites in Gujarat
15. Whether the Bhurj Basket Marked Phase is well defined or not. Express your opinion.

SEMESTER II	Course Code: ARC-CC-522	Credits: 4

NAME OF THE COURSE: EARLY IRON AGE OF INDIA

Course Outcomes:

CO1: Understand the Iron Age culture in India- its Origin, Chronology-cultural features.
CO2: Know the Salient features of Painted Grey Ware culture
CO3: Learn about the Megalithic Cultures of India - Distribution, Typology, Material remains and Excavated sites.
CO4: Get a knowledge about the Megalithic cultures of Kerala- Chronology, Distribution, typology and material remains
CO5: Understand the salient features of NBPW culture.
CO6: Familiarize the various excavated early historic sites

COURSE CONTENT

Module I:
Early occurrence of Iron: Chrono-cultural features. Major Ceramic wares from Iron age – PGW, NBPW and BRW.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Study the early occurrence of Iron (Understand, Evaluate)
MO2: Understand the Chrono-cultural features of Iron in India (Understand, Analyze)
MO3: Get an idea about the major ceramic wares from Iron age (Understand, Analyze)

Module II:
Salient features of Painted Grey ware culture

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Obtain an idea about the origin of the Painted Grey ware culture in India (Understand, Analyze, Evaluate)
MO2: Analyze the chronology of the Painted Grey ware culture (Understand, Analyze, Evaluate)
MO3: Familiarize the distribution of the Painted Grey ware culture (Understand, Analyze)
MO4: Understand the typo-technology of Painted Grey ware pottery (Understand, Analyze, Apply)

Module III:
Megalithic Cultures of India: Distribution, Typology,Material remains and Excavated sites – Mahurjari, Takalghat-Khapa, Naikund,Brahmagiri, Adichanallur, Megaliths of Dharward region.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get a basic knowledge about the distribution of Megalithic cultures in India (Understand, Analyze)

MO2: Analyze the technology of Megalithic pottery (Understand, Apply)

MO3: Acquire an idea about the material remains during the Megalithic period (Understand, Analyze)

MO4: Familiarize the excavated megalithic sites in India (Understand, Analyze)

Module IV:

Megaliths of Kerala- Distribution, Typology and major sites.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Know the distribution of Megalithic sites in Kerala (Understand, Analyze)

MO2: Analyze the typology of Megalithic monuments in Kerala (Understand, Analyze)

MO3: Familiarize the major Megalithic sites of Kerala (Understand, Analyze)

Module V:

Salient features of NBPW culture.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an idea about the origin of NBPW (Understand, Remember)

MO2: Acquire a basic knowledge about the distribution of NBPW (Understand, Analyze)

MO3: Analyze the Typo-technology of NBPW (Understand, Analyze, Apply)

MO4: Understand the chronology of NBPW (Understand, Analyze)

Module VI:

Excavated early historic sites – Rajghat, Ujjain, Taxila, Mathura, Sravasti, Kausambi, Sishupalgarh, Sringaverpura, Satanikotta, Chandraketugarh, Nasik,Arekamedu, Nagarjunakonda and Sannathi.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Familiarize the excavated early historic sites in India (Understand, Remember)

MO2: Understand the chronology of various excavated early historic sites (Understand, Analyze)

MO3: Analyze the cultural features of the excavated early historic sites (Understand, Analyze, Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT

Suggested Learning Activities

- Assignments
- Seminar Presentation on selected topics
- Field work and survey

LEARNING RESOURCES:

References

- Agrawal, D.P and D.K Chakrabarty. 1979. *Essays in Indian Protohistory.* Delhi: D.K.
- Dhavalikar, M.K. 1999. *Historical Archaeology of India*. Delhi: Books and Books.
- Narasimhaiah, B. 1980. *Neolithic and Megalithic cultures in Tamilnadu*. Delhi: Sundeep Prakashan.
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On-line Sources

http://www.archeologia.univ.rzeszow.pl/
https://www.researchgate.net/
https://www.academia.edu/
https://shodhganga.inflibnet.ac.in/
https://www.jstor.org/
http;//www.kulib.in/infonet.html
http;//epathshala.nic.in/

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/ Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC- 522: Early Iron Age of India

Time: 3 Hours Max. Marks: 60

Section A

Answer any **one**: **(1x15=15)**

1. Analyze the origin, Chronology and distribution of Megalithic culture in India
2. Evaluate the main features on NBPW culture found in India
3. Give an analytical account of the material culture of the early historic period in India

Section B

Answer any **three:** **(3x10=30)**

4. Write an analytical note on the foreign ceramics found in India
5. Write a critical note on PGW Culture
6. Evaluate the importance of Sisupalgarh in the early historic period of India
7. Discuss analytically the typology of Megalithic cultures in south India
8. Give an appraisal about the important features of Kausambi
9. Analyze the salient features of Ujjain

Section C

Answer any **three**: **(3x5=15)**

10. Assess the importance of the site Cherumangadu in the Megalithic culture of India
11. Evaluate the salient features of Mathura
12. Discuss analytically about Dolmen and Cist
13. Analyze the importance of Amphora in the early historic studies in India
14. Evaluate the importance of the site Chandraketugarh in the early historic studies of India
15. What is the significance of Mahurjari?

SEMESTER II	Course Code: ARC-CC- -523	Credits: 4

NAME OF THE COURSE: EARLY INDIAN ART

Course Outcomes:
CO1: Acquire knowledge on broad chronological and artistic development of Indian art from Mesolithic to Medieval periods
CO2: Understand the changes occurred in the style of art through foreign influence critically analysing sculptures of various periods
CO3: Observe and study the deviation in style happened through centuries under different schools of art.
CO4: The ability to positively criticise the approaches and methods used by the sculptors of various period.
CO5: Understand the symbiotic relationship between Indian art and architecture.
CO6: Develop critical skills related to reading and interpreting visual material, and its embeddedness in political, historical and cultural contexts.

COURSE CONTENT

Module I:
Pre Mauryan and Mauryan Art.
Art of Mesolithic, Neolithic and Harappan periods. Mauryan art reflected in Caves, Pillars, Stone sculptures and Terracotta.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Define the term Art (Understand)
MO2: Assess the significant features of rock art of Mesolithic period (Evaluate)
MO3: Know the art style of the Harappan period (Understand)
MO4: Evaluate the aesthetic proportions and features of Ashoka Pillars (Evaluate)
MO5: Estimate the proportion of Persian/Achaemenid or Hellenistic elements on Mauryan Pillars (Evaluate)
MO6: Identify the Mauryan imprints on Yakhsha and Yakshi sculptures of $3^{rd}/2^{nd}$ century BCE (Anlyse).
MO7: Estimate the level diversity and aesthetics displayed in
Mauryan terracotta sculptures (Evaluate)

Module II:
Sunga and Satavahana Art
Sunga Art reflected in Besnagar Pillar, Bharhut Stupa, Early Sanchi Stupa and Terracotta images.
Satavahana Art reflected in Western Buddhist caves of Bhaja, Pitalkhora, Nasik and Kanheri. Satavahana art at Sanchi and Amaravati.

Module Outcome:
After Completion of this module, the student should be able to:

MO1: Compare and contrast the pillars of Mauryan and Sunga period (Understand)
MO2: Assess the aesthetic blending of art and architecture in Bharhut stupa (Evaluate)
MO3: Differentiate standing images of Yakshas and Yakshis of Mauryan and Sunga periods (Analyse).
MO4: Identify the salient features of costumes and ornaments depicted in Sunga and Satavahana sculptures (Analyse)
MO5: Analyse the Buddhist art of Bhaja, Pitalkhora, Nasik and Kanheri caves. (Analyse)
MO6: Recognize the salient features of Andhra school of art through Amaravati stupa (Remember)
MO7: Recognize the contribution of Satavahanas in embellishing Sanchi Stupa (Evaluate).

Module III:
Kushan and Ikshvaku Art
Mathura and Gandhara schools of art under Kushanas
Buddhist art at Nagarjunakonda Stupa of Ikshvakus

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Recognize the salient features of Gandhara and Mathura schools of art (Understand)
MO2: Distinguish between Buddha images of Gandhara and Mathura Schools of Art (Analyse)
MO3: Distinguish between Buddha and Bodhisatva images
MO4: Distinguish the distinct style of Ikshvaku art in Nagarjunakonda stupa.
MO5: Compare the Buddhist art of Sungas, Satavahanas and Ikshvakus

Module IV:
Gupta Art
Study of Brahmanical, Buddhist and Jain sculptures of Gupta period. Mural paintings of Ajanta and Bagh.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand salient features of Brahmanical sculptures of Gupta period (Understand)
MO2: Distinguish the distinct style of depiction of Buddha images in Gupta period (Analyse).
MO3: Compare the stone and metal images of Buddha of the Gupta period and bring out their salient features (Analyse).
MO4: Understand the distinctive features of the Thirthankara images of Gupta period (Understand)
MO5: Understand nature and form of mural paintings at Ajanta (Understand)
MO6: Identify the method of application of colours in Ajanta paintings (Analyse)
MO7: Compare the mural paintings of Ajanta and Bagh caves (Analyse)

Module V:
Art Schools of Deccan and South India – Chalukya, Rashtrakuta, Pallava, Chola and Hoysala

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand salient features of Chalukya, Rashtrakuta and Pallava art (Understand)
MO2: Distinguish the distinct style of Chola art (Analyse).
MO3: Identify the distinct features of metal images of Pallava and Chola periods (Analyse).
MO4: Understand the distinctive features of stone sculptures of Hoysala period (Understand)
MO5: Distinguish sculptures of Pallava, Chola and Hoysala periods (Analyse)

Module VI:
Art under Chandela, Pala-Sena and Eastern Ganga (Orissa)

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Know the distinguishing features of Chandela art (Understand)
MO2: Distinguish the style of Pala Sena art (Analyse).
MO3: Identify the characteristic features of Eastern Ganga dynasty (Analyse).
MO4: Recognize the sculptures of Chandela, Pala-Sena and Eastern Ganga periods (Analyse)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities
- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES:
References

- Agrawal,V.S. (1965). *Master pieces of Mathura Sculpture*. Varanasi: Prithvi Prakshan
- Bachoffer, L.(1973). *Early Indian Sculpture* Vol. I&II. Delhi: Munshiram Manoharlal Banarsidass
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MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC- -523: Early Indian Art

Time: 3 Hrs **Max Marks: 60**

Section A
Essay

Answer any one (1x15=15 Marks)

1. Illustrate with example the features Mauryan and Sunga pillars
2. What are the areas of differences of Gandharan and Mathura School of Arts?
3. Identify the method of application of colours and presentation of themes in Ajanta paintings

Section B

Answer any three (3X10=30 Marks)

4. Give a comparative account of Buddha images of Kushan and Gupta period
5. Identify the distinctive features of the metal images of Pallava and Chola periods
6. Discuss the salient features of steles of Pala sculptures. How the Sena sculptures differ from Pala sculptures?
7. Describe how the daily life is presented in Khajuraho group of temples
8. Compare the style of depiction of figures in Amaravati and Nagarjunakonda stupas
9. Critically analyse the Salabhajika sculptures of Bharhut stupa.
10. Give an appraisal of terracotta images of Sunga period

Section C

Answer any three (3X5=15 Marks)

11. Give an appraisal of Surya images of Konark Sun temple
12. Describe the features of decorative friezes in Hoysala temples
13. Assess pattern of depiction of sculptures in Jagannatha temple at Puri
14. Give an assessment of the Bhuvaraha panel in the Udayagiri cave
15. Provide the distinctive features of the Thirthankara images of Gupta period

SEMESTER II	Course Code: ARC-CC- -524	Credits: 4

NAME OF THE COURSE: INDIAN ARCHITECTURE

Course Outcomes:

CO1. Understand about the Mauryan Architecture - Pillars, Caves, Palaces and Stupa
CO2. Gain knowledge about the Buddhist Architecture –Stupas and Monasteries, Pre-Mauryan, Mauryan and Post Mauryan evidences.
CO3. Acquire basic knowledge about the rock- cut caves of Western India (Maharashtra) and Eastern India (Orissa)
CO4. Get an understanding about the temple architecture in India- Nagara, Vesara and Dravida, Gupta Architecture- caves and structural temples, Vakataka Caves at Ajanta
CO5. Obtain basic idea about the Chalukayan Architecture - Temples at Aihole, Badami, Pattadakal
CO6. Understand the architecture under Rashtrakuta especially Ellora and Aurangabad
CO7. Get a basic knowledge about the architecture found in the Chandela temples and Orissan temples
CO8. Analyse the evolution of temples under Pallavas, Cholas Hoysalas and Vijayanagara

COURSE CONTENT

Module I:

History and development of Architecture in India- Religious and Secular. Mauryan Architecture - Pillars, Caves, and Palaces.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an outline of the history and development of religious and secular architecture in India (Understand, Analyze, Evaluate)
MO2: Acquire a basic knowledge about the architecture of the pillars in India (Understand, Analyze)
MO3: Understand the architecture of the caves in India (Understand, Analyze)
MO4: Gain knowledge about the palace architecture in India (Understand, Analyze)

Module II:

Buddhist Architecture – Stupas, Chaityas and Monasteries – Pre-Mauryan, Mauryan and Post Mauryan evidences –Piprahwa, Lauriya-Nandangarh,Vaishali, Bairat, Sanchi, Barhut, Mathura, Sarnath, Devnimori, Nalanda, Ratnagir and Takht-i- bahi. Stupas in Andhra Pradesh with specific reference to those from Amaravati and Nagarjunakonda. Rock- cut caves of Western India (Maharashtra) and Eastern India (Orissa).

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Acquire a basic knowledge of the Buddhist architectures of Stupas, Chaityas and Monasteries in Pre-Mauryan period (Evaluate, Understand)

MO2: Get an idea about the Buddhist architectures of Stupas, Chaityas and Monasteries in Mauryan period (Understand, Evaluate)

MO3: Understand the Buddhist architectures of Stupas, Chaityas and Monasteries in Post Mauryan period (Understand, Analyze)

MO4: Identify the Stupas in Andhra Pradesh with specific reference to those from Amaravati and Nagarjunakonda (, Understand, Analyze)

MO5: Obtain a basic knowledge of the Rock- cut caves of Western India (Understand, Analyze)

MO6: Understand the Rock- cut caves of Eastern India (Understand, Evaluate)

Module III:

Temple Architecture in India- Nagara, Vesara and Dravida. Gupta Architecture - Caves and Structural temples. Ajanta and Bagh Caves.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Analyze the architecture of Temples in India (Understand, Analyze)

MO2: Obtain the contributions of Guptas in Indian architecture (Understand, Evaluate, Analyze)

MO3: Understand the Architecture of Ajanta and Bagh caves during the Gupta period (Evaluate, Understand, Analyze)

Module IV:

Chalukayan Architecture - Temples at Aihole, Badami and Pattadakal; Rashtrakuta-Vakataka-Ellora and Aurangabad caves.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an idea about the contributions of Chalukyas in temple architecture at Aihole, Badami and Pattadakal (Evaluate, Understand, Analyze)

MO2: Acquire an idea about the of the cave architecture of Rashtrakutas at Ellora and Aurangabad caves. (Evaluate, Understand, Analyze)

MO3: Obtain a basic Knowledge about the architecture of Vakataka at Ellora and Aurangabad caves. (Evaluate, Understand, Analyze)

Module V:

Chandela temples at Khajurahoand Orissan temples at Bhuvansehwar and Puri.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Understand the architecture of Chandela in the temples at Khajuraho (Evaluate, Understand, Analyze)

MO2: Get a basic knowledge about the architecture of Orissan temples at Bhuvansehwar and Puri (Evaluate, Understand, Analyze)

Module VI:

Evolution of temples under –Pallavas, Cholas, Hoysalas and Vijayanagara

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Gain Knowledge about the contributions of Pallavas in Indian Temple architecture (Evaluate, Understand, Analyze)

MO2: Give a brief information's about the contributions of Cholas in Indian Temple architecture (Evaluate, Understand, Analyze)

MO3: Understand the contributions of Hoysalas in Indian Temple architecture (Evaluate, Understand, Analyze)

MO4: Obtain a basic knowledge about the contributions of Vijayanagara in Indian Temple architecture (Evaluate, Understand, Analyze)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT

Suggested Learning Activities

- Assignments
- Seminar Presentation on selected topics
- Field work and survey

LEARNING RESOURCES:

References

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http;//www.kulib.in/infonet.html
http;//epathshala.nic.in/

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).

60% End-semester/ Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC- 524: Indian Architecture

Time: 3 Hours **Max. Marks: 60**

Section A

Answer any **one**: **(1x15=15)**

1. Evaluate the contribution of Pallava dynasty to the Indian architecture.
2. Bring out a brief analysis of the architectural importance of Chalukyas
3. Analyze the salient features of Gupta temple architecture

Section B

Answer any **three:** **(3x10=30)**

4. Give a brief analysis of the architectural features of Orissan temples
5. Assess the temple architecture under Hoysalas
6. Write a short analysis on the evolution of Stupa architecture in India
7. Elucidate the contribution of Chandellas to the Indian architecture
8. Analyze Ellora rock-cut caves and bring out their importance
9. Write a brief evaluation on the architectural features under the Mauryas

Section C

Answer any **three** **(3x5=15)**

10. Illustrate the cave architecture of Ajanta
11. Write a short analysis on the architectural features of Ugayagiri- Khandagiri caves
12. Elucidate the features of Chaitya
13. Critically examine the architecture features of Shore temple at Mahabalipuram
14. Give a brief analysis on the contribution of Cholas in Indian Temple architecture
15. Elucidate the architectural importance at Sanchi

SEMESTER 3	Course Code: ARC-CC-531	Credits: 4

NAME OF THE COURSE: RESEARCH METHODOLOGY

Course Outcomes:
CO1. Understand the role and characteristics of Research
CO2. Familiarize research techniques and research methods
CO3. Understand sources of data in archaeology
CO4. Execute different data collection methods in archaeological research
CO5. Demonstrate Data Collection and Management Skills
CO6. Identify researchable topics in archaeology
CO7. Create Research Reports

COURSE CONTENT

Module I:
Role of Research, Characteristics of Research.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the role and characteristics of Research (Understand)

Module II:
Research Methodology: Research Methods and Techniques – Traditional, Scientific, Historical, and Philological methods. Survey, Case Study, Field Investigation and evaluation. Data Collection Methods in Archaeology, Sources of Data in Archaeology

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarize research techniques and research methods (Understand)
MO2: Understand sources of data in archaeology (Understand)
MO3: Execute different data collection methods in archaeological research (Apply)

Module III:
Hypothesis - its different forms of testing.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the role of hypothesis in a research and its different forms of testing (Understand)

Module IV:
Research Design: Descriptive, diagnostic, exploratory and experimental.

Module Outcome:
After Completion of this module, the student should be able to:

MO1: Understand various research designs (Understand)
MO2: Apply suitable design in research work (Apply)

Module V:
Collection of Data. Its Processing and Analysis, Selection of a Problem for Research, Selection of a Guide for Research and Plagiarism

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Execute different data collection methods in archaeological research (Apply)
MO2: Demonstrate Data Collection and Management Skills (Apply)
MO3: Identify researchable topics in archaeology (Understand)

Module VI:
Research Report - The research proposal, the introduction, review of literature, the methodology, analysis and interpretation of data, summery, conclusion and bibliography. Research Report - A Case Study.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Create Research Reports (Create)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities:

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Practical

LEARNING RESOURCES
References

- Ahuja, Ram. 2010. *Research Methods.* New Delhi: Rawat Publications.
- Denscombe, Martyn.1999. *The Good Research Guide*. London: Viva Books.
- Gibaldi, Joseph. 2000. *MLA Handbook for Writers of Research Papers*. Delhi: Affiliated Publishers.
- Joglekar, P. P. 2014. *Research Methodology for Archaeology Students*. Pune: Gayatri Sahitya.
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- Kumar, Ranjit. 2011 (Reprint). *Research Methodology – A Step by – Step Guide for Beginners*. New Delhi: Sage Publications India Pvt. Ltd.
- Silverman, David. 2005. *Doing Qualitative Research*. London: Sage Publications Pvt. Ltd.

- White, Theresa L. and Donald M. McBurney. 2012. *Research Methods.* Massachusetts: Cengage Learning.

ASSESSMENT
40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-531: Research Methodology

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. How would you select a problem for research
2. Discuss about the different parts of a research report
3. Explain the steps involved in collection of data, its processing and analysis

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. How would you identify the differences between research methods, research methodology and research techniques?
5. Develop a research proposal in Archaeology in the pattern of research report
6. Express your views on research design in archaeology
7. Explain the standards to distinguish historic method, scientific method and Philological method
8. Evaluate the role of Hypothesis in research and its different forms of testing
9. How would you collect data in Archaeological research?

SECTION C (Short Notes)

Answer Any Three **(3x5=15 Marks)**

10. Do you think that interview method is applicable in Archaeology?
11. Write a brief outline of Case study Method.
12. Distinguish between Bibliography and References
13. Plagiarism can't be encouraged. Why?
14. Why the use of table in a research report is important
15. Evaluate the role and characteristics of research

SEMESTER III	Course Code: ARC-CC-532	Credits: 4

NAME OF THE COURSE: ANCIENT INDIAN ICONOGRAPHY

Course Outcomes:

CO1: Understand the concept of Iconography

CO2: Gain Knowledge on antiquity of image worship and origin and development of Iconography in Indian subcontinent

CO3: Acquire knowledge on Iconometry.

CO4: Identify various forms Hindu deities and distinguish iconographic features of these forms

CO5: Identify, differentiate and classify iconographic forms and features of Buddhist deities

CO6: Identify the form and differentiate iconographic features of Jain Thirthankaras and Associate deities

CO7: Get an over view on different iconographic traditions in the Indian subcontinent in relation to the religious ideas and trends.

CO8: Get an outline on emergence and developments of iconic forms of deities in India

COURSE CONTENT

Module I:

Origin and development of Iconography in India. Antiquity of image worship in India

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Define the term Iconography (Understand)

MO2: Assess the relation between Religion and Iconography (Evaluate)

MO3: Comprehend the mode of worship of different periods (Understand)

Module II:

Iconometry or Talamana, the concise account of the measurements of Hindu images

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Define the term Iconometry or Talamana (Understand)

MO2: Gain knowledge on the ancient texts dealing with Iconometry (Understand)

MO3: Differentiate North Indian and South Indian systems of Talamanapaddhati (Analyse)

MO4: Differentiate absolute and relative units of measurements of Talamanapaddhati(Analyse)

MO5: Identify the pioneers in the field of iconometry(Remember)

Module III:

Iconography of Siva (Aniconic and Iconic forms), Vishnu and his *dashavataras* and Brahma

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Origin and antiquity of Shiva worship in India (Analyse)
MO2: Distinguish between aniconic and iconic forms of Shiva (Analyse)
MO3: Evaluate the pacific, terrific and syncretic forms of Shiva (Evaluate)
MO4: Understand the Vyuha and Vibhava concept of Vishnu (Understand)
MO5: Identify and distinguish iconographic features Vishnu (Analyze)
MO6: Identify the form and distinguish iconographic features Dashvataras of Vishnu(Analyse)
MO7: Identify the form and distinguish iconographic features Brahma (Analyse)

Module IV:

Iconography of Surya, Ganesha, Kartikeya, Durga, Lakshmi, Parvati, Saraswati, Saptamatrikas, Ashtadikpalas and Navagrahas.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Understand the origin and growth of Surya worship in India (Understand)
MO2: Understand the antiquity of Surya images (Understand)
MO3: Know the salient features of Surya images and distinguish the regional variations (Analyse)
MO4: Trace the origin and growth of Ganesha worship in India (Understand)
MO5: Understand the antiquity of Ganesha images (Understand)
MO6: Know the salient features of Ganesha images and distinguish the regional variations (Analyse)
MO7: Understand the origin and development of Kartikeya worship in India (Understand)
MO8: Trace the antiquity and evolution Kartikeya images (Understand)
MO9: Know the salient features of Kartikeya images and distinguish the regional variations (Analyse)
MO10: Understand the distinguishing features of goddesses Durga, Lakshmi, Parvati and Saraswati (Understand)
MO11: Know the origin, evolution and regional variations of Saptamatrika icons (Analyse)
MO12: Know the origin, evolution and regional variations of Ashtadikpalas icons (Analyse)
MO13: Know the origin, evolution and regional variations of Navagraha icons (Analyse)

Module V:

Buddhist Iconography - Buddha, Dhyani Buddhas, Bodhisattvas and Buddhist female deities

Module Outcome:

After Completion of this module, the student should be able to:

MO1: To know the symbolic representations of Buddha and the meanings behind symbols (Understand).

MO2: Trace the origin and development of Buddha images, and their regional variations (Analyse).
MO3: Know the concept of Dhyani Buddhas and salient features of their iconic representations (Analyse)
MO4: Identify Bodhisattva images and distinguish the features of Bodhisattva images of various periods (Analyse)
MO5: Differentiate Buddha and Bodhisattva images (Evaluate)
MO6: Know the form and concept of Buddhist female deities (Understand)

Module VI:
Iconography of Jain Tirthankaras and Associated deities.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Trace the origin and development of Tirthankara images (Analyse)
MO2: Understand the regional and period wise variations of Tirthankara images (Analyse)
MO3: Identify Jain female deities and differentiate them from the Buddhist female deities (Analyse)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES
References

- Banerjee, J.N. 1974. *Development of Hindu Iconography.* New Delhi: MunshiramManoharlal.
- Bhattacharya,A.K. 2010. *Historical Development of Jaina Iconography.* Delhi: Bharatiya Kala Prakashan
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- Haripriya Rangarajan Images of Skanda-Kartikeya-Murugan: An Iconographic Study Sharada Publishing House
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- Nagaswamy, R. (2012). Vedic roots of Hindu Iconography. New Delhi: Kaveri Books.
- Rao, Ramachandra,S.K .2003. *Pratimakosha-Encyclopedia of Indian Iconography.* Delhi: India Book
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- Shivaramamurti,C. 1972. Nataraja in Art, Thought and Literature. Delhi: Ministry of Information and Broadcasting, Government of India.
- Welankar, Vaishali. 2009. Vaishnavism- An Iconographic Study Vol.I&II. Delhi: Agam Kala Prakashan.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-532: Ancient Indian Iconography

Max Time: 3 hours **Max Marks:60**

Section A

Answer any one **(1x15=15)**

1. Evaluating different theories on image worship in Rigvedic Period provide your own opinion.
2. Give a comparative account of Ardhanareeswara, Harihara and Dattatreya images of Shiva.
3. Name ten avataras of Vishnu and describe their main iconographic features

Section B

Answer any three **(3X10=30)**

4. What is iconometry? Explain how Lambaphalaka helps in Iconometry
5. Compare the Surya images of South Indian and North Indian Temples
6. Assess the origin and development of Ganesha icons
7. Illustrate different varieties of Shiva lingas
8. Critically analyse the regional variations of Kartikeya images
9. Give an appraisal of Mahishasuramardini sculptures of south Indian temples

Section C

Answer any five **(3X5=15)**

10. Give an assessment of the iconographic features of Navagrahas
11. Differentiate the icons of Lakshmi and Saraswati
12. Who are Ashtadikpalas? Through a diagram Illustrate the quarter assigned to each of them.
13. Provide a comparative account of Gajasamhara and Kalantaka murtis of Shiva
14. How do you differentiate Buddha image from Bodhisatva image?
15. Name Saptamatrakas and provide their distinct iconographic features

SEMESTER I	Course Code: ARC-CC-533	Credits: 4

NAME OF THE COURSE: ARCHAEOLOGY OF KERALA

Course Outcomes:

CO1: Understand the nature of archaeological remains and researches in the Kerala region
CO2: Understand and apply the geomorphology and environment of Kerala in archaeological perspective
CO3: Summarise the cultural developments in Kerala through artefacts, epigraphs, art and architecture
CO4: Implement the information to identify and describe the archaeological remains from Kerala
CO5: Analyse the archaeological remains of Kerala
CO6: Evaluate the archaeological researches in Kerala in a critical view point

COURSE CONTENT

Module I:

Geomorphology of Kerala- brief understanding of rock and soils, geological stratigraphy and land forms in Kerala.
Prehistory of Kerala- Palaeolithic, Mesolithic and Neolithic.

Module Outcome:

After Completion of this module, the student should be able to:
MO1: Comprehend geomorphology and environment of Kerala (Understand)
MO2: Apply the knowledge of geomorphology and environment in archaeological perspective (Apply)
MO3: Summarise the prehistoric cultural development in Kerala (Understand)
MO4: Implement the information to identify and describe the prehistoric remains from Kerala (Apply)
MO5: Analyse and evaluate the prehistoric researches in Kerala in a critical view point (Analyse, Evaluate)

Module II:

Iron Age Culture of Kerala- Megalithic burial typology, artefacts and chronology.
Excavations in Kerala – Pattanam, Vizhinjam and Kottappuram fort.

Module Outcome:

After Completion of this module, the student should be able to:
MO1: Comprehend Iron Age and Early Historic period in Kerala (Understand)
MO2: Implement the information to identify and describe the Iron Age and Early Historic remains from Kerala (Apply)
MO3: Analyse and evaluate the Iron Age and Early Historic researches in Kerala in a critical view point (Analyse, Evaluate)

Module III:
Temple architecture in Kerala- Introduction to temple elements and its development. Sculptural art of Kerala - stone, wood and metals.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Comprehend temple architecture and its development and sculptural art in Kerala (Understand)
MO2: Apply the knowledge of temple architecture and arts in archaeological perspective (Apply)
MO3: Implement the information to identify and describe the temple architecture and arts from Kerala (Apply)
MO4: Analyse and evaluate the temple architecture and arts in Kerala in a critical view point (Analyse, Evaluate)

Module IV:
Painting tradition in Kerala: rock art (Petrographs and Petroglyphs) and mural paintings.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Comprehend the painting tradition in Kerala (Understand)
MO2: Implement the information to identify and describe the painting tradition from Kerala (Apply)
MO3: Analyse and evaluate the painting tradition in Kerala in a critical view point (Analyse, Evaluate)

Module V:
Epigraphs of Kerala- Tarasapalli Copper Plates, Huzur Office Plates of Karunandadakkan, Paliyam Copper Plates of Vikramaditya Varaguna, and Jewish Copper Plates of Bhaskara Ravi Varman.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarise the inscriptions in Kerala (Understand)
MO2: Apply the knowledge of inscriptions in understanding the social and political conditions in archaeological point of view (Apply)
MO3: Implement the information to identify and describe the inscriptions from Kerala (Apply)
MO4: Analyse and evaluate the inscriptions in Kerala in a critical view point (Analyse, Evaluate)

Module VI:
Brief introduction to church and mosque architecture in Kerala.
Medieval monuments of Kerala – Forts, *Chumadutangi* (load relieving stones), and *vazhiyambalam.*

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Familiarise the church and mosque architecture and Medieval monuments in Kerala (Understand)

MO2: Apply the knowledge of church and mosque architecture and Medieval monuments in archaeological perspective (Apply)

MO3: Implement the information to identify and describe the church and mosque architecture and Medieval monuments from Kerala (Apply)

MO4: Analyse and evaluate the church and mosque architecture and Medieval monuments in Kerala in a critical view point (Analyse, Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT

Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES:

References

- Abhayan, G.S. 2018. Iron Age Culture in Kerala, South India: An Appraisal, in *Iron Age in South Asia, South Asian Archaeology Series 2* (Ed. Akinori Uesugi), pp. 145-188, Osaka: Research Group for South Asian Archaeology, Archaeological Research Institute, Kansai University. (ISBN 978-4-9909150-1-8)
- Bernier, Ronald M. 1982. *Temple Arts of Kerala: A South Indian Tradition*, New Delhi: S. Chand and Company Ltd.
- Darsana, S.B., 2010. Megalithic Burials of Iron Age-Early Historic Kerala: An Overview. *Man and Environment* 35: 98–117.
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- Jayashankar, S. 1997. *Temples of Kerala*. Trivandrum: Directorate of Census Operations.
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- Menon, T. Madhava 2000. *A Handbook of Kerala Vol.1*&2. Trivandrum: ISDL.
- Rajendran, P. 1989. *The Prehistoric Cultures and Environment (A Case Study of Kerala)*. Classical Publishing Company, New Delhi.
- Ramachandran, A. 2011. *Painted Abode of Gods: Mural Traditions of Kerala*. New Delhi: Vadehra Art Gallery.
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- Sarkar, H. 1978. *An Architectural Survey of Temples of Kerala*. Delhi: ASI.
- Seth, Mira 2006. *Indian Painting- The great mural tradition,* Ahmedabad: Mapin.

On-line Sources
https://www.youtube.com/watch?v=2OAebZZbvg8
https://youtu.be/p3_d_PckyAQ

ASSESSMENT
40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC-533: Archaeology of Kerala

Max Time: 3 hours **Max Marks:60**

Section A
Essay

1x15=15 Marks

Answer any one:

1. Evaluate Iron Age culture in Kerala and propose a strategy to improve the aspect of chronology.
2. Critically examine the rock art evidence in Kerala and debate its cultural contexts.
3. How would you appreciate the architectural features of structural temples in Kerala with the help of illustrations showing plans and elevations.

Section B
Short Essay

3x10=30 Marks

Answer any three:

4. How the church architecture in Kerala developed through time. Give your observations about the factors that determined its architecture.
5. How the epigraphic records impart information about the functioning of an organisation? Demonstrate on the basis of Huzur Office Plates.
6. How the Jewish Copper Plates contributed to the understanding of the Early Medieval society in Kerala.
7. What do you think about the rock cut temple architecture in Kerala.
8. How does the geomorphology of your place of residence (consider it as a Ward) influence the life and culture of its residents? Give examples.
9. Express your opinions about the Prehistoric finds from Kerala.

Section C
Short Notes

3x5=15 Marks

Answer any three:

10. What are the possible archaeological interpretations from *Chumadutangi* (Load Relieving Stones).
11. Evaluate the wooden sculptural art tradition in Kerala.
12. How would you explain the contents of Paliyam Copper Plates.
13. Assess the unique features of mosque architecture in Kerala with examples.
14. How the mural paintings of Kerala can be assessed through the view point of an archaeologist.
15. Analyse the contributions of Vizhinjam excavation in Kerala.

SEMESTER III	Course Code: ARC-DE-534	Credits: 4

NAME OF THE COURSE: HERITAGE AND MUSEUM MANAGEMENT

Course Outcomes:

CO1: Understand the history of conservation and it as a multidisciplinary science, theories, modern principles and guidelines, its approaches, attitude, professional ethics and scope of entrepreneurship

CO2: Get an idea about the material elements in structures, factors effecting monuments, conservation problems and issues and structural conservation measures.

CO3: Acquire a basic knowledge about the Museums, its definition, development, function and organizations of museums. Types of Museums and Museum buildings.

CO4: Understand the Artefacts– their collection, documentation, conservation and preservation.

CO5: Learn about the Exhibition– presentation, exhibition techniques, show cases and furniture Exhibit Lighting. Security.

CO6: Familiarize the Indian antiquarian laws and salient features of the following Acts - a). Indian Treasure Trove Act-1878 b). The Ancient Monuments and Archaeological Sites and Remains Act 1958 c). Antiquities and Art Treasure Act 1972.

CO7: Get acquainted with the rules and regulations of1972 UNESCO 'Convention concerning the protection of the world cultural and Natural Heritage'.

COURSE CONTENT

Module I:

Conservation and Preservations- Definitions. History, Basic Differences, As a multidisciplinary science, theories, modern principles and guidelines, conservation – approach, attitude, professional ethics and scope of entrepreneurship**.**

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Understand the definition, history and basic difference between of conservation and preservation (Understand, Analyze)

MO2: Acquainted with the relation of science, its theories, principles and guidelines of conservation and get basic information regarding the approach, attitude and professional ethics in the process of conservation (Understand, Apply)

MO3: Get an idea about the scope of entrepreneurship in museum conservation (Understand, Analyze)

Module II:

Material elements in structures, factors affecting the monuments, conservation problems and issues and remedies, and structural conservation measures**.** Physical and chemical conservation methods in structural monuments.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Obtain a basic knowledge about the material elements in structures (Understand, Analyze)

MO2: Get an idea about the conservation problems, its issues and various factors affecting the structural monuments (Understand, Apply)

MO3: Analyze the Physical & Chemical conservation methods in structural monuments. (Understand, Apply, Analyze)

Module III:

A brief history of Indian antiquarian laws in India. Salient features and implications of the following Acts - Indian Treasure Trove Act-1878, The Ancient Monuments and Archaeological Sites and Remains Act 1958, Antiquities and Art Treasure Act 1972. 1972 UNESCO 'Convention concerning the protection of the world cultural and Natural Heritage'

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Get an idea about a brief history of antiquarian laws in India (Remember, Understand, Apply, Analyze, Evaluate)

MO2: Understand the Salient features and implications of the Indian Treasure Trove Act-1878 (Understand, Apply, Analyze, Evaluate)

MO3: Understand about the Salient features and implications of the Archaeological Sites and Remains Act 1958 (Understand, Apply, Analyze, Evaluate)

MO4: Get basic information regarding the Antiquities and Art Treasure Act 1972. (Understand, Apply, Analyze, Evaluate)

MO5: Understand the 1972 UNESCO 'Convention concerning the protection of the world cultural and Natural Heritage' (Understand, Apply, Analyze, Evaluate)

Module IV:

Museums – Importance, Definition, development, functions and organizations of museums, Types of Museums and Museum Buildings. Important Museums in India.

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Acquire a basic knowledge about the importance, definition, development functions and organizations of museums (Understand, Apply, Analyze, Evaluate)

MO2: Get an idea about the various types of museums (Understand, Analyze)

MO3: Analyze the museum buildings (Remember, Analyze)

MO4: Understand the importance of museums in India (Understand, Analyze)

Module V:

Artifacts – Organic and inorganic, their collection, documentation, conservation and preservation. (Understand, Apply, Analyze, Evaluate)

Module Outcome:

After Completion of this module, the student should be able to:

MO1: Learn about the various organic and inorganic artifacts in the museums (Understand, Apply, Analyze, Evaluate)
MO2: Understand the collection procedure of museum artifacts (Understand, Apply, Analyze, Evaluate)
MO3: Analyze the different conservation and preservation procedure of museum artifacts (Understand, Apply, Analyze, Evaluate)

Module VI:
Exhibition - Presentation exhibition technique, show cases, furniture, lighting.
Museum Security.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquire a basic knowledge about the various exhibition techniques in the museums (Understand, Apply, Evaluate, Create)
MO2: Know the different types of show cases used in the museums (Understand, Apply, Evaluate, Create)
MO3: Get an idea about the various furniture's in the museums (Understand, Apply, Evaluate, Create)
MO4: Learn about the various lighting systems used in the museums (Understand, Apply, Evaluate, Create)
MO5: Understand the different security measures applied in the museums (Understand, Apply, Evaluate, Create)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Assignments
- Seminar Presentation on selected topics
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES
References

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- Bhatnagar, Anupama. 1999. *Museum Museology and New Museology*. Delhi: Sundeep Prakashan.
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http://www.e-books-chennaimuseum.tn.gov.in/
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http;//www.kulib.in/infonet.html
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ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/ Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-DE- 534: Heritage and Museum Management

Time: 3 Hours Max. Marks: 60

Section A

Answer any **one**: **(1x15=15)**

1. Define museum and analyze the growth of museum movement in India
2. Trace out the development of museum and antiquarian laws in India with special reference to Ancient Monuments and Archaeological Sites and Remains Act 1958
3. Evaluate the various methods of conserving inorganic objects

Section B

Answer any **three:** **(3x10=30)**

4. Analyze and compare the characteristic features of various types of museums found in India
5. Evaluate the major criteria's for the inclusion of World heritage monuments
6. Analyze different methods employed for the acquisition and documentation of museum objects
7. Give a brief analysis on the different types of showcases
8. Analyze the importance of layout, design and light for the display of artefacts in museums
9. "Museums are an integral part of our culture and society." Critically evaluate the statement.

Section C

Answer any **three**: **(3x5=15)**

10. Analyze the salient feature of site museum at Hampi
11. Briefly evaluate the implication of Indian Treasure Trove Act 1858
12. Critically analyze the term Antiquity
13. Give a brief assessment about museum security
14. Evaluate the significance of Collection policy
15. Analyze the importance of Luxmeter

SEMESTER III	Course Code: ARC-DE- 535	Credits: 4

NAME OF THE COURSE: POTTERY AND CERAMICS

Course Outcomes:
CO1. Understand the history of pottery and ceramics in India
CO2. Familiarize the pottery studies in India
CO3. Understand the pottery making techniques and stages of production
CO4. Categorize pottery from various archaeological contexts
CO5. Demonstrate pottery documentation methods
CO6. Analyse the composition and structure of ceramics
CO7. Evaluate the methods used to build the chronology

COURSE CONTENT

Module I:
Pottery and Ceramics: Definition
History of use of Pottery and Ceramics in India
Pottery Studies in India: Archaeological, Ethnoarchaeological and Ethnographic

Module Outcome
After completion of this module, the student should be able to:
MO1: Understand the history of pottery and ceramics in India (Understand)
MO2: Familiarize the pottery studies in India (Understand)

Module II:
Raw Materials of Pottery Making
Pottery Manufacturing: Techniques and Stages of Production

After completion of this module, the student should be able to:
MO1: Understand the pottery making techniques and stages of production (Understand)

Module III:
Typological Studies: Classification, Quantification
Ceramic Assemblages, Site Formation Processes

After completion of this module, the student should be able to:
MO1: Categorize pottery from various archaeological contexts (Analyse)

Module IV:
Documentation of Ceramics
Practical: Recording, Sampling, Drawing and Photography of Ceramics

After completion of this module, the student should be able to:
MO1: Demonstrate pottery documentation methods (Apply)

Module V:
Technological Studies
Petrographic Characterization, X-Ray Diffraction, Optical Emission Spectroscopy, X-Ray Fluorescence Spectroscopy, Atomic Absorption Spectroscopy, Neutron Activation Analysis, X-Ray Radiography
Practical: Petrographic techniques

After completion of this module, the student should be able to:
MO1: Analyse the composition and structure of ceramics (Analyse)

Module VI:
Dating of Ceramics
Chronometric Dating: Radiocarbon, Archaeomagnetic, Thermoluminescence
Relative Dating

After completion of this module, the student should be able to:
MO1: Evaluate the methods used to build the chronology (Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Practical
- Field work and survey (Outdoor)

LEARNING RESOURCES
References

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ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-DE-535: Pottery and Ceramics

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. Explain the significance of the study of ancient ceramics in modern world
2. Evaluate various stages in the production of ceramics
3. Do you think that petrographic characterization of ceramics is essential? Explain Why?

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. How would you identify the minerals present in ceramics?
5. What do you think about the use of pottery in India
6. Express your views on radiocarbon dating of ceramics
7. What is your opinion about the use of ethnoarchaeology for ceramic studies?
8. How will you classify ceramics from various archaeological contexts?
9. Why drawing of potsherds are very important in Archaeology?

SECTION C (Short Notes)

Answer Any Three **(3x5=15 Marks)**

10. Glaze is the preform of Glass. Is it true? Explain
11. Why researchers powder ceramic samples for Non-destructive scientific analytical methods?
12. Distinguish between Pottery and Ceramics
13. Ceramic breakages can tell about site formation process. Validate the statement
14. What is seriation? Explain it with the help of an example
15. Do you think that Black and Red Ware was a luxurious ware. Why?

SEMESTER III	Course Code: ARC-DE- 536	Credits: 4

NAME OF THE COURSE: ZOOARCHAEOLOGY IN PRACTICE

Course Outcomes:
CO1: Appreciate the human-animal interactions in archaeology and animal domestication process.
CO2: Familiarise the Mammalian and Fish osteology
CO3: Apply comparative osteology and identify the species of domestic animals from bones
CO4: Understand the basics of faunal collection protocols and qualitative and quantitative zooarchaeological methods
CO5: Understand the basics of age and sex determination methods in zooarchaeology
CO6: Analyse the factors for alterations of archaeological faunal records
CO7: Acquaint with the scope of stable isotope studies in zooarchaeology
CO8: Evaluate the patterns of animal utilization from archaeological faunal records

COURSE CONTENT

Module I:
Zooarchaeology: Definition; aims, objectives and scope of zooarchaeological studies
Animal domestication: Definition of wild, tame, feral, and domestic animals; Various theories related to animal domestication
Animal Taxonomy
Mammalian and Fish osteology: Skeletal system; Identification of skeletal elements
Practical: Articulating animal skeleton; drawing and labelling animal bones

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquaint with the scope of zooarchaeological studies (Remember, Understand)
MO2: Appreciate the human-animal interactions in archaeology and animal domestication process (Understand)
MO3: Familiarise the Mammalian and Fish osteology (Understand)
MO4: Execute articulation of the Mammalian and Fish skeletal elements (Apply)

Module II:
Reference Collections and Comparative Osteology
Practical: Osteological identification of domestic animals (cattle, buffalo, sheep, goat, horse, donkey, dog and pig)

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand and use zooarchaeological reference collections and laboratory facility (Understand, Apply)

MO2: Apply comparative osteology and identify the species of domestic animals from bones (Apply)
MO3: Differentiate closely related domestic species from bones (Analyse)

Module III:
Faunal collections from excavations: context, recovery and systematic recording, cleaning, labelling, storage
Zooarchaeological techniques: Qualitative and Quantitative methods (NISP, MNI, MNE and weight method); Osteometric studies

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the basics of faunal collection and management protocols (Understand)
MO2: Understand the basics of qualitative and quantitative zooarchaeological methods (Understand)
MO3: Evaluate the patterns of animal utilization from archaeological faunal records on the basis of qualitative and quantitative methods (Evaluate)

Module IV:
Determination of age in domestic animals
Practical: Application of tooth eruption and wear; Application of epiphyseal fusion

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the basics of age determination through tooth eruption and tooth wear in zooarchaeology (Understand)
MO2: Understand the basics of age determination through epiphyseal fusion in zooarchaeology (Understand)
MO3: Evaluate the patterns of animal utilization from archaeological faunal records on the basis of age determination methods (Evaluate)

Module V:
Determination of sex in archaeological skeletal elements
Taphonomic Observations: Bone modifications (Human-induced modifications and natural modifications) and palaeopathology

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the basics of sex determination methods in zooarchaeology (Understand)
MO2: Analyse the natural factors for alterations of archaeological faunal records (Analyse)
MO3: Analyse the human-induced factors for alterations of archaeological faunal records (Analyse)
MO4: Evaluate the patterns of animal utilization from archaeological faunal records on the basis of sex identification and alterations in the bones (Evaluate)

Module VI:
Stable isotope studies in zooarchaeology and interpretations on animal diet, mobility and environment.
Case studies for Holocene faunal record from archaeological sites in India:
Case study 1: Bagasra
Case study 2: Inamgaon
Case study 3: Langhnaj

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquaint with the scope of stable isotope studies in zooarchaeology (Understand)
MO2: Evaluate the animal utilization pattern and environment assessed through stable isotope studies of archaeological faunal records (Evaluate)
MO3: Evaluate the patterns of animal utilization from the case studies of archaeological faunal records (Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities
- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES
References

- Abhayan, G. S., P. P. Joglekar, P. Ajithprasad, K. Krishnan, K. K. Bhan and S. V. Rajesh 2018. Fish Exploitation during the Harappan Period at Bagasra in Gujarat, India. An Ichthyoarchaeological Approach, in *Walking with the Unicorn. Social Organization and Material Culture in Ancient South Asia. Jonathan Mark Kenoyer Felicitation Volume* (Eds. Dennys Frenez, Gregg Jamison, Randall Law, Massimo Vidale and Richard H. Meadow), pp. 1-18. Oxford: Archaeopress.
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On-line Sources
https://sketchfab.com/

ASSESSMENT
40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-DE- 536: Zooarchaeology in Practice

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. In your understanding, what are the constraints in age determination of animals from faunal assemblages?
2. Evaluate the role of sample recovery and documentation methods in the zooarchaeological studies.
3. How would you identify closely related species from zooarchaeological assemblages? Discuss the challenges.

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. What kind of interpretations are possible with the MNI?
5. How would you estimate the domestication status of animals from a faunal assemblage.
6. What are the possible means of reaching animal bones in the archaeological sediments?
7. How stable isotopic studies are useful in understanding the mobility of animals. Quote examples from the case study of Bagasra.
8. Express your views on the relevance of osteological reference collections.
9. How would you assess a faunal assemblage from an archaeological site, if it contains more than 50% wild fauna?

SECTION C (Short Note)

Answer Any Three **(3x5=15 Marks)**

10. How would you identify cut marks on animal bones?
11. In your opinion, epiphyseal fusion or dental eruption and wear is more reliable?
12. Critically evaluate the criteria for identification of sex in domestic animals from the bones?
13. Discuss about the Langhnaj faunal assemblage.
14. What is the current status of zooarchaeological laboratory facilities in India?
15. Whether the comparative osteology is the best technique for the species identification in zooarchaeology or not? Express your views.

SEMESTER IV	Course Code: ARC-CC- 541	Credits: 4

NAME OF THE COURSE: PALAEOGRAPHY AND EPIGRAPHY

Course Outcomes:
CO1: Understand the antiquity and development of writing in India
CO2: Familiarize and decipher ancient scripts of Brahmi and Kharoshti
CO3: Categorize inscription types
CO4: Apply inscriptional information for historical reconstruction
CO5: Understand the inscriptions of early historic to medieval periods in India
CO6: Analyse the contents of inscriptions
CO7: Evaluate the inscriptions and arrive at cohesive historical interpretation

COURSE CONTENT

Module I:
Origin and antiquity of the art of writing in India. Value of inscriptions for historical reconstruction.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the antiquity and development of writing in India (Understand)
MO2: Comprehend the value of inscriptions for historical reconstruction (Understand)
MO3: Evaluate the inscriptions and arrive at cohesive historical interpretation (Evaluate)

Module II:
Ancient writing materials. Types of inscriptions with special reference to *prashastis* and land grants.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Categorize inscription types (Understand, Analyse)
MO2: Analyse the contents of inscriptions (Analyse)

Module III:
Palaeography – Introduction to Brahmi script and its evolution into Nagari script. Introduction to Kharoshti script.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarize and decipher ancient scripts of Brahmi and Kharoshti (Remember, Understand)
MO2: Apply decipherment to elucidate the contents of inscriptions in Early Brahmi and Kharoshti (Apply)

Module IV:
Study of selected epigraphs (Part I)- Ashokan Edicts- rock edicts X, XII, XIII, Lumbini inscription of Ashoka, Minor Rock Edicts of Bairat, Besnagar Garuda pillar inscription.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarize and decipher ancient scripts of Early Brahmi and Kharoshti (Remember, Understand)
MO2: Apply inscriptional information from case study of epigraphs for historical reconstruction (Apply)
MO3: Analyse the contents of inscriptions from case studies (Analyse)
MO4: Evaluate the inscriptions and arrive at cohesive historical interpretation (Evaluate)

Module V:
Study of selected epigraphs (Part II)- Hathigumpha inscription of Kharavela, Nasik inscription of Pulumavi's 19^{th} regnal year, Junagarh inscription of Rudradaman, Allahabad pillar inscription of Samudragupta.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarize and decipher ancient script of Middle Brahmi (Remember, Understand)
MO2: Apply inscriptional information for historical reconstruction (Apply)
MO3: Analyse the contents of inscriptions (Analyse)
MO4: Evaluate the inscriptions and arrive at cohesive historical interpretation (Evaluate)

Module VI:
Study of selected epigraphs (Part III)- Aihole inscription of Pulakesin II, Gwalior inscription of Mihir Bhoja, Tiruvalangadu plates of Rajendra Chola.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Familiarize and decipher ancient script of Late Brahmi (Remember, Understand)
MO2: Apply inscriptional information for historical reconstruction (Apply)
MO3: Analyse the contents of inscriptions (Analyse)
MO4: Evaluate the inscriptions and arrive at cohesive historical interpretation (Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES

References

- Buhler, G. 1959. Indian Palaeography. Calcutta: Indian Studies.
- Dhani, A.H. 1986. *Indian Palaeography.* Delhi: Munshiram Manoharlal.
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On-line Sources

https://www.youtube.com/watch?v=dlm5itnOBZM
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ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC- 541: Palaeography and Epigraphy

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. What is your assessment on the Asokan Edicts in terms of its contents.
2. Brahmi alphabets drastically changed from the beginning up to 7th century CE. Do you agree with this? Explain your stand in this.
3. How Hathigumpha inscription of Kharavela contributed to the historical reconstruction?

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. If you deciphered Nasik inscription of Pulumavi's 19th regnal year, how would you present it in an article form? Give a model of your presentation.
5. How would you treat the information from Allahabad *prasasti* of Samudragupta?
6. Write a note on the ancient place names and geographical features as mentioned in the epigraphs and give examples wherever necessary.
7. Elucidate the characteristic features of Land Grants with the help of examples from Tiruvalangad Copper Plates.
8. What are your views on the origin and antiquity of writing in India?
9. What are the differences between Kharoshti and Brahmi scripts in terms of their palaeographic features?

SECTION C (Short Note)

Answer Any Three **(3x5=15 Marks)**

10. How do you assess the Box-headed Brahmi?
11. Derive the character of Heliodorus from Besnagar Pillar inscription.
12. How would you consider the information on the restoration of Sudarsana Lake?
13. Why Lumbini inscription was inscribed?
14. What is your opinion on 'Tamila confederacy' mentioned in Hathigumpha inscription of Kharavela?
15. How the 'label inscriptions' are significant?

SEMESTER IV	Course Code: ARC-CC- 542	Credits: 4

NAME OF THE COURSE: ANCIENT INDIAN NUMISMATICS

Course Outcomes:
CO1: Get an outline about the origin and antiquity of coinage in Ancient India.
CO2: Acquire basic knowledge and study the coins as a source of Indian history.
CO3: Understand the various manufacturing techniques and metrology of ancient Indian coinage.
CO4: Get acquainted with the coin series in India like, punch marked and cast coins, Local and Tribal coins, Indo-Greek coins, coins of Saka-Pahlavas and Coins of Western Kshatrapas.
CO5: Get an overview about the coinage of Kushan dynasty and Satavahana kingdom.
CO6: Understand about the Gupta coins, Coins of Hunas, Maukharis and Pushpabhutis.
CO7: Get basic knowledge about the coinage of Chola, Pandya, Chera kingdoms and Roman coins from South India.

COURSE CONTENT

Module I:
Origin, antiquity and general features of coinage in ancient India.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the evolution of coinage in India (Understand, Analyze, Evaluate)
MO2: Get familiarize with the antiquity of coinage in India (Understand, Analyze, Evaluate)
MO3: Conceptualize and get an outline about the various theories regarding the origin, evolution and antiquity of coinage in India (Understand, Analyze, Apply, Evaluate)

Module II:
Importance of Numismatics for the study of Ancient history – Socio-Cultural and Political, Religion and Economy, Scripts and language, Art and Iconography.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understands the external and internal aspects of numismatic evidence. (Understand, Analyse, Evaluate)
MO2: Get an understanding about the internal aspects of numismatics and its importance for the political history. (Understand, Analyse, Evaluate)
MO3: Understands the importance for the study of Social and cultural life. (Understand, Analyse, Evaluate)
MO4: Understands the importance of numismatics for the study of Religious and Economic history. (Understand, Analyse, Evaluate)
MO5: Get to understands about the value of numismatics for the analysis of language, art and iconography. (Understand, Analyse, Evaluate)

Module III:
Technique of manufacture, metrology and metallurgy. Legends, Symbols, Monograms and other devices.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Get an overview of the ancient techniques of the manufacturing of coins in India. (Understand, Analyse, Evaluate)
MO2: Understands the various metals and other materials used for coins. (Understand, Analyse, Evaluate)
MO3: Acquire the basic ideas about the legends, symbols, monograms and other devices in ancient Indian coinage. (Understand, Apply, Analyse, Evaluate)

Module IV:
Survey of the following coin series in India: Punch marked and cast coins, Local and Tribal coins, Satavahana coins, Indo-Greek coins, Kushana coins, Saka – Pahlavas, Coins of Western Kshatrapa.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Gain knowledge about the historical background of Punch marked coins in India. (Remember, Understand, Analyse)
MO2: Identify the general features of cast coins, local coins and Tribal coins. (Understand, Analyse)
MO3: Get to understand the brief evaluation of the Satavahana coinage. (Understand, Analyse)
MO4: Acquire the basic knowledge about the general features, metallurgy and metrology of the Kushana coinage. (Understand, Analyse)
MO5: Identify and evaluate the coinage of Indo- Greek, Saka- Pahlvas, and the Western kshatrapas. (Understand, Analyse)

Module V:
Imperial Gupta coins **,**Coins of Hunas, Maukharis and Pushpabhutis.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understands and analyse briefly about the history and evolution of Imperial Gupta coinage. (Understand, Analyse)
MO2: Understands and identify the coinage of Hunas and Maukharis and Pushpabhutis. (Understand, Analyse)

Module VI:
Chola, Pandya, Chera and Roman coins from South India.

Module Outcome:
After Completion of this module, the student should be able to:

MO1: Get to understand and evaluate the coinages of Chola, Pandya and Chera kingdoms. (Understand, Analyse, Evaluate)
MO2: Acquire the basic information about the sites where Roman coins had been found from south India and there general features. (Understand, Analyse)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments

LEARNING RESOURCES:
References

- Agrawal, Bhanu and Subas Rai. 1994. *Indian Punch marked Coins*. New Delhi: Kanishka Publishers.
- Allan, J. 1975. *Catalogue of coins in Ancient India.* Delhi: Munshiram Manoharlal.
- Altekar, A.S. 1954. *The Gupta Gold Coins in the Bayana Hoard*. Bombay: NSI.
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- Jain, Rekha.1995. *Ancient Indian Coinage*. Delhi: D.K. Printworld.
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- Sharma, Savita. 2016. *Imperial Punch Marked Coins of ancient India*. New Delhi: Aryan Books International.
- Singh, Manager Rajdeo and Uma Shankar Lal. 2019. *Scientific Investigations of ancient Indian coins and Metals.* New Delhi: Agam Kala Prakashan.
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https://www.doaj.org/
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https://www.researchgate.net/

https://epathshala.nic.in/

ASSESSMENT

40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-CC- 542: Ancient Indian Numismatics

Time: 3 Hours **Max .Marks: 60**

Section A

Answer any one: **(1x15=15)**

1. Evaluate the importance and give a factual appraisal on the salient features of Gupta coinage?
2. Elucidate and evaluate the contribution of Numismatics as a source in rewriting the history of India
3. Ancient Indian Coinage reflects the ancient trade relation with several foreign countries. Authenticate the statement in relation with south India with factual analysis?

Section B

Answer any three: **(3x10=30)**

4. Write an evaluation on the Indo Greek coinage with a brief analysis on the genealogy of the kings.
5. Give a concise account of the Chola coins and evaluate its importance on the South Indian history.
6. Analyze the various techniques adopted to manufacture coins in ancient India
7. Evaluate and bring out the importance of Kushan coinage in the ancient Indian numismatics
8. Analyze with supporting theories about the origin and antiquity of Indian coinage
9. Explore and analyze the salient features of Satavahana coinage.

Section C

Answer any three: **(3x5=15)**

10. Distinguish the Pandya coins with other south Indian coinage
11. Clarify the term Metrology
12. Evaluate the general features of Tribal coins
13. Analyze the Local coins
14. Distinguish the significance of Saka coinage in Indian numismatics
15. Identify and evaluate the main symbols featured in PMC.

SEMESTER IV	Course Code: ARC-CC- 543	Credits: 6

NAME OF THE COURSE: DISSERTATION

Course Outcomes:
CO1: Conduct archaeological research by oneself.
CO2: Apply research methods in archaeological research to collect data .
CO3: Apply research methods in archaeological research to present researched data
CO4: Analyse the data generated
CO5: Evaluate the data and existing knowledge and integrate new findings
CO6: Create new knowledge in a specific area in archaeology through research

COURSE CONTENT

Research work and preparation of dissertation based on original works by students in any of the following fields: prehistory, art and architecture, palaeography, epigraphy, numismatics, iconography, scientific applications in archaeology or any related topic of archaeology.

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Field work and survey
- Discussions and Debates
- Dissertation work (drafting)

ASSESSMENT
40% Comprehensive Viva-Voce
60% Dissertation

SEMESTER IV	Course Code: ARC-DE- 544	Credits: 4

NAME OF THE COURSE: SCIENCE IN ARCHAEOLOGY

Course Outcomes:
CO1: Understand the role of science in archaeology
CO2: Familiarise with the scientific applications in archaeology
CO3: Identify the potential archaeological contexts and artefacts for scientific investigations
CO4: Implement suitable scientific methods in archaeological projects
CO5: Analyse the scientific results and interpretations in archaeological reports and communicate with the experts/scientists
CO6: Evaluate the scientific approaches in archaeology in a critical view point

COURSE CONTENT

Module I:
Science and archaeology:
Scientific methodology and development of archaeological sciences.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the role of science in archaeology (Understand)
MO2: Familiarise with the scientific methodology and development of archaeological sciences (Understand)

Module II:
Geoarchaeology:
Principles, methods and scope in archaeology.
Basics of geophysical survey techniques.
Identification of rocks and minerals.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Identify the potential archaeological contexts and artefacts for geoarchaeological investigations (Understand, Apply)
MO2: Implement suitable geoarchaeological methods in specific archaeological projects (Apply)
MO3: Analyse the geoarchaeological results and interpretations in archaeological reports and communicate with the experts/scientists (Analyse)
MO4: Evaluate the geoarchaeological approaches in archaeology in a critical view point (Evaluate)
MO5: Identify the rocks and minerals from archaeological contexts (Apply, Analyse)

Module III:
Paleontology and zooarchaeology:

Principles, methods and scope in archaeology.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Identify the potential archaeological contexts for palaeontological and zooarchaeological investigations (Understand, Apply)
MO2: Implement suitable palaeontological and zooarchaeological methods in specific archaeological projects (Apply)
MO3: Analyse the palaeontological and zooarchaeological results and interpretations in archaeological reports and communicate with the experts/scientists (Analyse)
MO4: Evaluate the palaeontological and zooarchaeological approaches in archaeology in a critical view point (Evaluate)

Module IV:
Archaeobotany and Palynology:
Principles, methods and scope in archaeology.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Identify the potential archaeological contexts for archaeobotanical and palynological investigations (Understand, Apply)
MO2: Implement suitable archaeobotanical and palynological methods in specific archaeological projects (Apply)
MO3: Analyse the archaeobotanical and palynological results and interpretations in archaeological reports and communicate with the experts/scientists (Analyse)
MO4: Evaluate the archaeobotanical and palynological approaches in archaeology in a critical view point (Evaluate)

Module V:
Physical Anthropology:
Human osteology, identification of human bones and palaeopathology.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Identify the potential archaeological contexts for physical anthropological investigations (Understand, Apply)
MO2: Implement suitable physical anthropological methods in specific archaeological projects (Apply)
MO3: Analyse the physical anthropological results and interpretations in archaeological reports and communicate with the experts/scientists (Analyse)
MO4: Evaluate the physical anthropological approaches in archaeology in a critical view point (Evaluate)

Module VI:
Archaeological Chemistry:
Principles, methods and scope in archaeology.

Palaeodietary and Palaeoenvironmental studies: Trace elements, residue analyses, stable isotopes.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Identify the potential archaeological contexts and artefacts for investigations using archaeological chemistry (Understand, Apply)
MO2: Implement suitable methods of archaeological chemistry in specific archaeological projects (Apply)
MO3: Analyse the results and interpretations on chemistry in archaeological reports and communicate with the experts/scientists (Analyse)
MO4: Evaluate the archaeological chemistry approaches in archaeology in a critical view point (Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES
References

- Banning, E.B. 2000. *The Archaeologist's Laboratory, The Analysis of Archaeological Data*, New York: Kluwer Academic/Plenum Publishers.
- Bass, W.M. 1981. *Human Osteology: A Laboratory and Field Manual of the Human Skeleton.* Columbia: Missouri Archaeological society.
- Brothwell, D. and A.M. Pollard 2001. *Handbook of Archaeological Sciences.* England: Wiley.
- Brothwell, D. and E. Higgs (eds.) 1969. Science in Archaeology, 2nd Edition. London: Thames and Hudson.
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- Pollard, M., Batt, C., Stern, B. and Young, S.M.M. 2007. *Analytical Chemistry in Archaeology*, (Cambridge Manuals in Archaeology), Cambridge: Cambridge University Press.

- Reitz, Elizabeth J. and Wing, E.S. 1999. *Zooarchaeology (Cambridge Manuals in Archaeology)*, Cambridge: Cambridge University Press.

ASSESSMENT
40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-DE- 544: Science in Archaeology

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. Application of science in archaeology can solve many questions. Verify this statement?
2. Evaluate the role of geoarchaeology in the prehistoric research in India.
3. How would you handle the human bones recovered from your excavation (assume a preservation condition and nature of burial)? What kind of further expertise would be sought as per your collected specimens?

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. What kind of interpretations are possible with the Pottery Residue Analysis?
5. How would you collect archaeobotanical samples during an excavation?
6. What are the possible means of reaching animal bones in archaeological sediments?
7. Explain the principles of stable isotopic studies in archaeological contexts.
8. Express your views on the applicability of ancient DNA studies in India.
9. How would you assess a faunal assemblage from an archaeological site, if it contains more than 50% wild fauna ?

SECTION C (Short Note)

Answer Any Three **(3x5=15 Marks)**

10. How would you identify a fracture in the human bone from archaeological context?
11. In your opinion, epiphyseal fusion or dental eruption and wear is more reliable?
12. Explain your criteria to identify rocks and minerals?
13. Discuss about the problems in the collection of archaeobotanical samples through floatation technique.
14. What is your opinion on the application of geophysical methods in archaeological fieldwork?
15. Whether the comparative osteology is the best technique for the species identification in zooarchaeology or not? Express your views.

SEMESTER IV	Course Code: ARC-DE- 545	Credits: 2

NAME OF THE COURSE: FIELD ARCHAEOLOGY (EXPLORATIONS AND EXCAVATIONS)

Course Outcomes:
CO1. Understand various excavation and exploration methods in archaeology
CO2. Categorize artifacts and Eco-facts
CO3. Demonstrate Post excavation analysis
CO4. Demonstrate documentation of Artifacts
CO5. Evaluate the dating methods in Archaeology
CO6. Analyse the conservation and preservation methods in Archaeology
CO7: Explain the nature of archaeological Sites
CO8: Create Excavation and Exploration Reports

COURSE CONTENT

Module I:
Explorations of various sites (Field Study)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Understand various exploration methods in archaeology (Understand)
MO2: Explain the nature of archaeological Sites (Understand)

Module II:
Excavations of various sites (Field Study)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Understand various excavation methods in archaeology (Understand)
MO2: Categorize artifacts and Eco-facts (Apply)
MO3: Demonstrate documentation of Artifacts (Apply)
MO4: Evaluate the dating methods in Archaeology (Evaluate)

Module III:
Ethno archaeological studies (Field Study)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Understand Ethnoarchaeological surveys in archaeology (Understand)

Module IV:
Experimental studies (Field Study and Practical)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Understand the role of experimental studies in archaeology (Understand)

Module V:
Documentation of Artifacts (Practical)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Demonstrate documentation of Artifacts (Apply)
MO2: Analyse the conservation and preservation methods (Analyze)

Module VI:
Report writing (Tutorial)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Create Excavation and Exploration Reports (Create)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Practical
- Field work and survey (Outdoor)

LEARNING RESOURCES
References

- Agrawal, O. P. 1993. *Preservation of Art Objects and Library Materials*. New Delhi: National Book Trust India.
- Balme, Jane and Alistair Paterson. 2014. *Archaeology in Practice (A Student Guide to Archaeological Analyses)*. West Sussex: John Wiley and Sons Inc.
- Fagan, Brian M. and Nadia Durrani. 2016. *Archaeology A Brief Introduction*. London and New York: Routledge Taylor and Francis Group.
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- Hodder, Ian. 2012. *Archaeological Theory Today*. Cambridge: Polity Press.
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- Shaw, Ian, and Robert Jameson (Eds.).1999. *A Dictionary of Archaeology*. Oxford: Blackwell Publishers Limited.

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ASSESSMENT
50% Field Work and Practical
50% Exploration and Excavation Reports

SEMESTER IV	Course Code: ARC-DE- 546	Credits: 2

NAME OF THE COURSE: FIELD ARCHAEOLOGY (STUDY TOUR OF MONUMENTS)

Course Outcomes:

CO1. Evaluate spatio-temporal variations in the art and architectural features of Temples, churches and Mosques in India
CO2: Understand display techniques of various archaeological objects
CO3: Analyze the features of various artifacts from different cultural contexts
CO4: Evaluate the nature of archaeological sites in India
CO5: Understand the cultural dichotomy of India
CO6: Understand the conservation and preservation techniques used in India
CO7: Create Study Tour Reports

COURSE CONTENT

Module I:

Visits to various temples in India (Study Tour)

Module Outcome:

After completion of this module, the student should be able to:
MO1: Evaluate spatio-temporal variations in the art and architectural features of Temples (Evaluate, Analyze)

Module II:

Visits to various churches in India (Study Tour)

Module Outcome:

After completion of this module, the student should be able to:
MO1: Evaluate the changes in the art and architectural features of Churches (Evaluate, Analyze)

Module III:

Visits to various mosques in India (Study Tour)

Module Outcome:

After completion of this module, the student should be able to:
MO1: Judge characteristic features of Mosques in different parts of India (Evaluate, Analyze)

Module IV:

Visits to various museums in India (Study Tour)

Module Outcome:

After completion of this module, the student should be able to:
MO1: Understand display techniques of various archaeological objects (Understand)

MO2: Analyze the features of various artifacts from different cultural contexts (Analyze)

Module V:
Visits to Archaeological sites in India (Study Tour)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Evaluate the nature of various archaeological sites in India (Evaluate, Analyze)
MO2: Understand the conservation and preservation techniques used in India (Understand)

Module VI:
Report writing (Tutorial)

Module Outcome:
After completion of this module, the student should be able to:
MO1: Create Study Tour Reports (Create)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Practical
- Study Tour (Outdoor)

LEARNING RESOURCES
References

- Agrawal, O. P. 1993. *Preservation of Art Objects and Library Materials*. New Delhi: National Book Trust India.
- Brown, P. 1956. *Indian Architecture (Islamic period)*. Bombay: Taraporewala.
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ASSESSMENT

50% Study Tour of Archaeological Sites and Monuments
50% Study Tour Report

SEMESTER: Any	Course Code: ARC-GC-501	Credits: 2

NAME OF THE COURSE: INTRODUCTION TO ARCHAEOLOGY

Course Outcomes:
CO1. Analyse the conservation and preservation methods in Archaeology
CO2. Categorize artifacts and Eco-facts
CO3. Demonstrate Post excavation analysis, recording and interpretation of data
CO4. Evaluate the Chronological evolution of Monuments in India (Evaluate)
CO5. Evaluate the dating methods in Archaeology
CO6. Familiarize the aim, scope, and evolution of Archaeology
CO7. Gain knowledge about various archaeological monuments in India (Understand).
CO8. Identify the relationship between archaeology and other disciplines
CO9. Understand the data retrieval techniques in archaeology
CO10. Understand the history of Indian Archaeology

COURSE CONTENT

Module I:
What Archaeology is not – Paleontology, Grave Robbing, Treasure Hunting, Paranormal Events, Curses and Magic, What is Archaeology - Definition, aim, nature and scope, Relationship of Archaeology with Social, Natural and Physical Sciences.

Module Outcome:
After completion of this module, the student should be able to:
MO1: Familiarize the aim, scope, and evolution of Archaeology (Understand)
MO2: Identify the relationship between archaeology and other disciplines (Understand)

Module II:
History of Archaeology in India and growth of archaeology as an independent discipline.

Module Outcome:
After completion of this module, the student should be able to:
MO1: Understand the history of Indian Archaeology (Understand, Remember)

Module III:
Archaeological Data Retrieval: Exploration Techniques, Excavation Techniques, Experimental Archaeology, Ethno-archaeology, Ethnography, Recording Methods, Conservation and preservation of archaeological remains.

Module Outcome:
After completion of this module, the student should be able to:
MO1: Understand the data retrieval techniques in archaeology (Understand)
MO2: Categorize artifacts and Eco-facts (Analyze)
MO3: Demonstrate Post excavation analysis, recording and interpretation of data (Understand, Apply)

MO4: Analyse the conservation and preservation methods in Archaeology (Analyze)

Module IV:
Dating Methods: Relative and Chronometric, Post excavation analysis, Interpreting the Patterns in Archaeological Data: Culture history archaeology, Anthropological Archaeology: 3 new archaeologies, Neo-Darwinian archaeology, Feminist archaeology, Marxist Approaches and Interpretive archaeology, Preparation of reports.

Module Outcome:
After completion of this module, the student should be able to:
MO1: Evaluate the dating methods in Archaeology (Evaluate)
MO2: Understand sample collection techniques for dating (Understand)

Module V:
Recent Trends in Archaeology - Marine Archaeology, Public Archaeology, Industrial Archaeology.

Module Outcome:
After completion of this module, the student should be able to:
MO1: Evaluate the recent trends in Indian Archaeology (Evaluate)
MO2: Understand the scope of Industrial Archaeology in India (Understand)

Module VI:
Temporal Divisions of Archaeological Record in India. Important Archaeological Monuments in India.

Module Outcome:
After completion of this module, the student should be able to:
MO1: Gain knowledge about various archaeological monuments in India (Understand).
MO2: Evaluate the Chronological evolution of Monuments in India (Evaluate)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Practical

LEARNING RESOURCES
References

- Adams, W. Y. and E. W. Adams. 1991. *Archaeological Typology and Practical Reality A Dialectical Approach to Artifact Classification and Sorting*. Cambridge: Cambridge University Press.
- Agrawal, D. P.and J. S. Kharakwal. 2003. *Bronze and Iron Ages in South Asia*. New Delhi: Aryan Books International.

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- Hodder, I. and S. Hutson. 2003. *Reading the Past – Current Approaches to Interpretation in Archaeology*. Cambridge University Press: Cambridge.
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- Palmer, M. and P. Neaverson. 1998, *Industrial Archaeology: Principles and Practice*. Abington: Routledge.
- Renfrew, C. and P. Bahn. 2005. *Archaeology: the Key Concepts*. Abington: Routledge.
- Sengupta, G. and K. Gangopadhyay. 2009. *Archaeology in India – Individuals, Ideas and Institutions*. New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd.
- Skeates, R., C. McDavid and J. Carman. 2012, *The Oxford Handbook of Public Archaeology*. Oxford: Oxford University Press.
- Walker, M. 2005. *Quaternary Dating Methods*. West Sussex: John Wiley and Sons.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-GC-501: Introduction to Archaeology

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. Whether Horizontal excavation or Vertical excavation is more fruitful? Express your Views.
2. Evaluate the significance of Industrial Archaeology in Twenty First Century
3. Bring out a brief analysis of the architectural importance of Guptas

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. Write a brief evaluation on the architectural features under the Mauryas?
5. Explain the conservation techniques of metal objects?
6. Express your views about the role of Mortimer Wheeler in Archaeological researches in India?
7. Whether radiocarbon technique is suitable to date objects older than fifty thousand years. Present your views
8. Describe how the daily life is presented in Khajuraho group of temples
9. Critically analyse the development of Processual Archaeology in India

SECTION C (Short Notes)

Answer Any Three **(3x5=15 Marks)**

10. Illustrate the cave architecture of Ellora
11. How would you differentiate ancient and modern pits in an excavation?
12. How would you collect samples for TL dating?
13. What is your opinion about the use of relative dating techniques in Archaeology?
14. Give an appraisal of Maritime Archaeology in India
15. Simulation is useful in the study of ancient sites. Validate the statement with proper description.

SEMESTER: Any	Course Code: ARC-GC-502	Credits: 2

NAME OF THE COURSE: HUMAN ORIGIN AND EVOLUTION

Course Outcomes:
CO1: Understand theories of human evolution
CO2: Gain Knowledge on Human Evolution from Primates through fossil records
CO3: Know about bipedalism and brain development of early Hominids
CO4: Understand evolutionary trends in dentition
CO5: Know about the main achievements in human evolution
CO6: Different theories on spread of human around the world
CO7: Cultural evolution of human

COURSE CONTENT

Module I: Definition of evolution. Theories of human evolution

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Define Evolution (Remember)
MO2: Understand the traditional theory of Human Evolution (Understand)
MO3: Understand Darwins theory of evolution (Understand)
MO4: Judge which of these theories are coherent.

Module II: Human Evolution through fossil records, Bipedalism, evolutionary trends in dentition and brain development of early Hominids.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Define Primates and understand the species included in this group (Understand)
MO2: Trace the evolution of human from Humanlike being to Modern Human (Analyse)
MO3: Understand the anatomy of bipedalism and analyse various hypotheses on walking upright (Analyse)
MO4: Know the evolutionary trends in dentition (Analyse)
MO5: Know the brain developments of early Hominids (Analyse)

Module III: Main achievements in human evolution- Lithic technology, fire control, early burials and artistic expressions.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Know the lithic tools and tool making technology of Early humans (Understand).
MO2: Analyse the use of fire by early humans (Analyse).
MO3: Trace the burial practices of early human from material remains (Analyse)
MO4: Trace the artistic expressions of Prehistoric human (Analyse)

Module IV: Theories of Migration. Different theories on spread of human around the world

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Assess 'Out of Africa or Radiation Theory' on spread of human around the world (Evaluate).
MO2: Assess 'Multiregional or Parallel Evolution Theory' on spread of human around the world (Evaluate).

Module V: Evolutionary process is characterized by a set of changes : Anatomical, Psychic and Cultural

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Evaluate the anatomical changes occurred to Human in the process of Evolution (Evaluate).
MO2: Evaluate the cultural changes occurred to Human in the process of Evolution (Evaluate).
MO3: Evaluate the anatomical changes occurred to Human in the process of Evolution (Evaluate).

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES
References

- Conroy, G.C and Herman Pontzer. (2012) 3rd edition. Reconstructing Human Origin. London: W.W.Norton and Company.
- Jeffrey, K.M, Frank, F.P and W. Scott MC Graw (2016)3rd edition. Understanding Human Evolution. New York:Routledge
- John, J.S.(2017). Stone tools in Human Evolution. New York: Cambridge University
- Stringer, C and Peter Andrews. (2005). The Complete World of Human Evolution. London: Thames & Hudson.
- Douglas Palmer (2007). The Origin of Man. London: New Holland Publishers
- Michael Chazan (2018). 4th edition. World Prehistory and Archaeology- Pathways through time. London: Routledge.

ASSESSMENT
40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-GC-502: Human Origin and Evolution

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. Critically analyse different theories on human evolution
2. Enumerate the main achievements of Human in the process of evolution
3. Give an assessment on the evolution of lithic tool technology

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. What is the anatomy of bipedalism? Discuss various hypotheses on bipedalism.
5. Explain in detail 'Out of Africa theory'
6. Give a comparative account of Homo erectus and Neandertal Man
7. Give an account of Neolithic revolution.
8. What is Multiregional or Parallel Evolution Theory'?
9. Give an appraisal of cave paintings in Altamira

SECTION C (Short Note)

Answer Any Three **(3x5=15 Marks)**

10. Give an overview of the evolutionary trends in dentition of early human
11. Outline the hominid cranial evolution
12. How do you differentiate Prosimians from Anthropoids
13. Provide some examples of burial practices of early human
14. What is the taxonomy of Human species?
15. Trace the place of Cro Magnon in the evolutionary history of Human

SEMESTER III	Course Code: ARC-SE- 501	Credits: 4

NAME OF THE COURSE: ESSENTIAL COMPUTER APPLICATIONS FOR ARCHAEOLOGY

Course Outcomes:
CO1: Understand the computer applications in archaeological research
CO2: Acquaint with the essential computer applications required for the archaeological research and report writing.
CO3: Apply vector and raster data processing and reference management
CO4: Deploy text, images and multimedia for academic presentation in articles, oral presentation and poster presentation
CO5: Evaluate computer generated data and publications in systematic manner
CO6: Innovate methods of data management and presentation practices in archaeology

COURSE CONTENT

Module I:
Uses of digital tools in archaeology, Generation of digital data in archaeology- text, images (difference between vector and raster), spatial data

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Understand the useful digital data for archaeology (Understand)
MO2: Generate digital data including text, raster, vector and spatial data for computer applications in archaeological research (Apply)
MO3: Acquaint with the essential computer applications required for the archaeological research and report writing (Understand)

Module II:
Preparation of map using QGIS: Plotting geo-coordinates, Downloading base files, Working with Label and Symbology, Plotting elevation and contours, Using Map Lay Out Manager and composing maps.
Practical: Preparation of a location map in QGIS.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquaint with the GIS applications on QGIS required for the archaeological research and report writing (Understand)
MO2: Understand and apply vector and raster data processing for archaeology (Understand, Apply)
MO3: Apply QGIS for preparation of location map (Apply)
MO4: Evaluate the computer-generated geospatial data and publications in systematic manner (Evaluate)
MO5: Innovate methods of geospatial data management and presentation practices in archaeology (Create)

Module III:
Preparation of Illustrations (vector data): Computer programmes for vector file management, Uses of Inkscape in archaeology- pottery drawing, stratigraphy drawing, illustrative models.
Practical: Preparation of a pottery drawing in Inkscape from a scanned image (raster) of hand-drawn pottery.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquaint with the applications of vector data using Inkscape as per the requirement of the archaeological research and report writing (Understand)
MO2: Understand and apply vector data processing for illustration works in archaeology (Understand)
MO3: Apply Inkscape for preparation of pottery drawings (Apply)
MO4: Evaluate the computer-generated vector data and publications in systematic manner (Evaluate)
MO5: Innovate methods of vector data management and presentation practices in archaeology (Create)

Module IV:
Preparation of Images (raster data): Computer programmes for raster file management, Uses of GIMP in archaeology- editing images (crop, resize, text, image enhancement, multiple layer management, layout, export, save)
Practical: Editing of a pottery drawing in GIMP from a scanned image (raster) of hand-drawn pottery.

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquaint with the applications of raster data using GIMP as per the requirement of the archaeological research and report writing (Understand)
MO2: Understand and apply raster data processing for image editing works in archaeology (Understand)
MO3: Apply GIMP for modification of pottery drawings (Apply)
MO4: Evaluate the modified raster data and its published forms in systematic manner (Evaluate)
MO5: Innovate methods of raster data management and presentation practices in archaeology (Create)

Module V:
Reference Management using Mendeley Desktop: Benefits of using Reference Management software, Adding reference details in Mendeley Desktop, Adding references in text and preparation of list of references and formatting.
Practical: Draft an article with demonstration of Reference Management using Mendeley Desktop.

Module Outcome:
After Completion of this module, the student should be able to:

MO1: Acquaint with the uses of reference management applications as per the requirement of the archaeological research and report writing (Understand)
MO2: Understand and apply Mendeley for reference management works in archaeology (Understand)
MO3: Apply the reference management application (Mendeley Desktop) in the drafting of an article (Apply)

Module VI:
Presentation modes in archaeology: Article/Research paper, Oral Presentation, Poster Presentation.
Practical: Preparation of Article/Research paper using text management software, Preparation of Powerpoint presentation, Preparation of a poster

Module Outcome:
After Completion of this module, the student should be able to:
MO1: Acquaint with the applications helpful for the writing, oral and poster modes of presentation in archaeology (Understand)
MO2: Deploy text, images and multimedia for academic presentation in articles, oral presentation and poster presentation (Apply)

ACTIVITIES, LEARNING RESOURCES & ASSESSMENT
Suggested Learning Activities

- Tutorials
- Assignments
- Seminar Presentation on selected topics
- Debates
- Quiz
- Demonstration of simple experiments
- Field work and survey

LEARNING RESOURCES
References

- Adkins, L. and Adkins, R.A. 1989. *Archaeological Illustration,* (Cambridge Manuals in Archaeology), Cambridge: Cambridge University Press.
- Conolly, J. and Lake, M. 2006. Geographical Information Systems in Archaeology (Cambridge Manuals in Archaeology), Cambridge: Cambridge University Press.
- Goodman, D. and Piro, S. 2013. GPR Remote Sensing in Archaeology, Verlag Berlin Heidelberg: Springer.
- Laflin, Susan 1978. Computer Applications in Archaeology, United Kingdom: Computer Centre, University of Birmingham.
- Mather , Paul M., xxxx. Computer Processing of Remotely -Sensed Images
- Njoku, E.G. 2014. Encyclopaedia of Remote Sensing, New York: Springer.

On-line Sources
https://www.qgis.org/en/site/
https://www.gimp.org/
https://inkscape.org/

ASSESSMENT
40% Continuous / Formative Assessment (see PG Regulations).
60% End-semester/Summative Assessment: 3 hour written Exam.

MODEL QUESTION BASED ON OBE FORMAT
M.A. Archaeology Programme (CSS)
End Semester Examination, Month & Year
ARC-SE- 501: Essential Computer Applications for Archaeology

Time: 3 Hours **Max. Marks: 60**

SECTION A (Essay)

Answer Any One **(1x15=15 Marks)**

1. An archaeologist or a computer expert. Who would you think can effectively implement computer applications in archaeology?
2. Discuss the scope of archaeological applications of QGIS in a site reporting article.
3. The presentation of archaeological findings in article, oral and poster modes. Analyse the differences on the basis of the use of computer applications.

SECTION B (Short Essay)

Answer Any Three **(3x10=30 Marks)**

4. What are the benefits of handling pottery drawings in vector data?
5. What are the key features of reference Management softwares?
6. What are the various sources for downloading the base geospatial files for QGIS application?
7. What are the helpful tools you found most useful for editing jpg images in GIMP?
8. Express your views on the effectiveness of using powerpoint and multimedia for the oral presentation.
9. Computers can fail sometimes? Express your views on this statement.

SECTION C (Short Note)

Answer Any Three **(3x5=15 Marks)**

10. How would you represent large numbers of sites in a map lay out?
11. In your opinion, what are the basic computer requirements (hardware and software) for an archaeologist engaged in field work?
12. Give an example of vector data application in your assignment/research report?
13. Dos and don'ts in cropping and resizing an image in raster data format. Discuss based on your experience.
14. Evaluate the use of computer applications among your class mates?
15. Compatibility issues in digital data. Express your views based on an example you have experienced.