Ph.D. COURSE WORK EXAMINATION IN ARABIC
JULY 2023

Course II—THEORY AND CONCEPT—ARABIC

(2020 Admissions Onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

Answer any **ten** *questions from the following in Arabic or English.*
Each question carries 4 marks.

1   خصائص الشعر الجاهلي

2   حركة الديوان ودعواتها

3   موقف الإسلام من الأدب

4   الواقعية الاشتراكية في الأدب العربي

5   الملامح الفنية للنقائض

6   الرمزية عند أدونيس

7   أثر القرآن الكريم في اللغة العربية

8   مساهمة حركة أبولو في الشعر المصري

9   شعراء مخضرمون

10   خصائص الشعر العربي المهجري

11   الأغراض المستجدة في الشعر العباسي

12   المسرحية الشعرية عند أحمد شوقي

(10 × 4 = 40 marks)

Turn over

Part B

Answer any **one** *question from the following in Arabic or English.*
The question carries 10 marks.

13. الرواية العربية عند نجيب محفوظ

14. تطور المسرحية في بلاد العرب

$(1 \times 10 = 10 \text{ marks})$

G 4092

Ph.D. COURSE WORK EXAMINATION IN BIOSCIENCE/PHARMACY/ BIOCHEMISTRY/MICROBIOLOGY/BIOTECHNOLOGY, JULY 2023

Course II—THEORY AND CONCEPT—BIOSCIENCES

(2020 Admission onwards)

Time : Three Hours

Maximum : 50 Marks

Part A

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. With a neat diagram, discuss working of pH electrode.

2. Discuss the applications of centrifugation.

3. Discuss specimen preparation for electron microscopy.

4. Explain the principle of ion exchange chromatography. What are the applications ?

5. Discuss X-ray crystallography ? What are the applications ?

6. Explain 2D-gel electrophoresis and its applications.

7. Explain AFLP and its applications.

8. Write a note on TEM and explain its applications.

9. Explain Western blotting.

10. Explain media preparation for animal cell culture.

11. Write a note on anti inflammatory activity testing.

12. Explain the screening methods for clonal selection.

$(10 \times 4 = 40$ marks)

Part B

Answer any **one** *of the following.*
The question carries 10 marks.

13. Explain Sanger and Maxam and Gilbert sequencing.

14. What are expression vectors ? Explain the different types.

$(1 \times 10 = 10$ marks

G 4093

Ph.D. COURSE WORK EXAMINATION IN BOTANY, JULY 2023

Course II—THEORY AND CONCEPT—BOTANY

(2020 Admissions onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

Answer any **ten** *of the following.*
Each question carries 4 marks.

1. Briefly describe different types of restriction enzymes.

2. What is phylogenetic analysis ? What are the methods used for it ?

3. How to elucidate the structure of a compound using NMR technique ?

4. Explain the principle and application of LC-TOF-MS.

5. Differentiate native PAGE and SDS - PAGE. Write down its applications.

6. Write a note on plant secondary metabolites.

7. Explain the principle and application of ELISA.

8. Briefly describe the radioactive isotopes in biological research and give its applications.

9. Write a note on different modes of enzyme regulation.

10. Differentiate between RFLP and RAPD. Mention its applications.

11. What are the applications of TLC and HPLC ?

12. What is lyophilisation and mention its applications ?

$(10 \times 4 = 40$ marks$)$

Part B

Answer any **one** *question of the following.*
The question carries 10 marks.

13. Explain different chromatographic techniques ? How it is useful for the identification of a compound ?

14. What is electrophoresis ? Write about different electrophoresis techniques and its applications.

$(1 \times 10 = 10$ marks$)$

Ph.D. COURSE WORK EXAMINATION IN CHEMISTRY, JULY 2023

Course II—THEORY AND CONCEPT—CHEMISTRY

(2020 Admission onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

*Answer any **ten** of the following questions.*
Each question carries 4 marks.

1. (a) The IR stretching vibrations of O-H and N-H are around 3500 cm^{-1}. How will you distinguish between them ?

    (b) What is the limitation of Raman spectroscopy ?

    (c) Why background correction is required in AAS ?

2. (a) What are the components of Auger electron spectroscopy ?

    (b) Discuss the applications of Secondary ion mass spectrometry.

    (c) What are the applications of X-ray photoelectron spectroscopy ?

3. (a) What is the principle of polarized optical microscopy ?

    (b) Discuss the uses of Interference Microscopy.

    (c) Why careful preparation is required for microscope specimen ?

4. (a) Differentiate between Dynamic Mechanical Analysis and Thermo Mechanical Analysis.

    (b) What is the application of dielectric thermal analysis ?

    (c) Discuss the time-domain method for the measurement of thermal conductivity.

5. (a) What is Reversed-phase chromatography ?

    (b) What is the effect of solvent polarity in chromatography ?

    (c) Briefly explain the method of preparation of TLC plates.

6. (a) What are the limitations of X-ray diffraction technique ?

    (b) What is static light scattering method ?

    (c) What is the principle of nephelometry ?

7. (a) Discuss the applications of Vapor Pressure Osmometry.

   (b) Describe the basic instrumental components of Membrane Osmometry.

   (c) List out the different light scattering techniques used for material characterization.

8. (a) What are the different types of electrode impedance spectroscopy ?

   (b) What is meant by volume resistivity ? How is it measured ?

   (c) What does low dielectric loss mean ?

9. (a) What are the different types of compressions ?

   (b) What are flexural properties of materials ?

   (c) How creep relaxation is different from stress relaxation ?

10. (a) What are the advantages of vibrating viscometer ?

    (b) Why in some cases rheometer is required than viscometer for viscosity measurements ?

    (c) What is the application of rotational rheometer ?

11. (a) What is the relationship between luminescence and fluorescence ?

    (b) List out the instruments which use the dispersion of light.

    (c) How is optical transparency measured ?

12. (a) How will you record the IR spectrum of a gaseous molecule ?

    (b) What does high effusivity mean ?

    (c) What is the difference between SAXS and WAXD ?

$(10 \times 4 = 40 \text{ marks})$

Part B

Answer any **one** *of the following questions.*
The question carries 10 marks.

13. (a) Explain the various applications of ESR spectroscopy.

    (b) Explain the instrumentation and applications of thermogravimetric analysis.

14. (a) What is the difference between partition and adsorption chromatography ?

    (b) Explain the various static and dynamic mechanical properties of materials.

$(1 \times 10 = 10 \text{ marks})$

G 4095

Ph.D. COURSE WORK EXAMINATION IN COMMERCE, JULY 2023

Course II—THEORY AND CONCEPT—COMMERCE

(2020 Admissions onwards)

Time : Three Hours

Maximum : 50 Marks

Part A

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. What is the impact of globalisation on banking ?

2. Write a note on GATT.

3. Write a note on the recent development in corporate finance.

4. Explain the importance of working capital management.

5. Discuss the product pricing policies and strategies.

6. What do you understand by the term Product Mix ? Explain.

7. What is marketing research? Briefly explain marketing research process with flow chart.

8. Explain in detail the factors influencing the productivity.

9. Define Recruitment. Explain in detail about requirement process.

10. What is performance appraisal? Why is it used in organization ?

11. Write a note on International Accounting Standards.

12. What is human resource accounting ? Discuss with reference to a few definitions of human resource accounting.

$(10 \times 4 = 40 \text{ marks})$

Part B

Answer any **one** *question from the following.*
The question carries 10 marks.

13. What is Relationship marketing ? Do you agree that CRM has affect on customer value creation? Justify with examples.

14. Explain in detail the Recent Developments in Indian Financial system.

$(1 \times 10 = 10 \text{ marks})$

G 4096

Ph.D. COURSE WORK EXAMINATION IN ECONOMICS, JULY 2023

Course II—THEORY AND CONCEPT—ECONOMICS

(2020 Admission onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

Answer any **ten** *of the following.*
Each question carries 4 marks.

1. Write a note on money and time in a Walrasian model.

2. Discuss the inconsistency of Walra's law with Keynesian unemployment.

3. Explain Repressed inflation.

4. What is 'Information Asymmetry' ?

5. Write a note on 'Hidden Action principle'.

6. Explain Sharpe's approach to the capital asset pricing model.

7. Explain Coase theorem.

8. What is 'Pigou effect' ?

9. Write a note on financial inclusion.

10. What is the new Keynesian model ?

11. Write a note on rational expectations hypothesis.

12. Write a note on inflation targeting.

$(10 \times 4 = 40 \text{ marks})$

Part B

Answer any **one** *question from the following.*
The question carries 10 marks.

13. Critically examine the financial sector reforms in India.

14. Discuss the environmental issues and global warming in the Indian context.

$(1 \times 10 = 10 \text{ marks})$

Ph.D. COURSE WORK EXAMINATION IN ENGLISH, JULY 2023

Course II—THEORY AND CONCEPT—ENGLISH

(2020 Admission onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

Attempt any **ten** *questions of the following.*
Each question carries 4 marks.

1. Interpretation has become "The intellect's revenge upon art"—Elaborate.

2. Moving away from nature has led to a state in which the principle of oppression has taken over all of human life – Discuss with reference to Adorno and Horkheimer.

3. Discuss how Mohanty proves that the study of literature is essential to our varied inquiries into the tangled relationship between colonialism and modernity.

4. Modern style of interpretation has lost sensitivity and rather strive to "excavate . . . destroy" a piece of art – How can interpretation become stifling ?

5. Instrumental rationality.

6. Author as an 'ideological' figure linked to a cult of personality.

7. Dominant representation of Indian culture replicate to some extent the presupposition of orientalism–Discuss with reference Teyaswini Niranyana.

8. Signature event concept by Derrida.

9. Anderson's concept of imagined community.

10. Connection between imperialism and culture according to said.

11. Space of the postcolonial female subject.

12. The concept of 'herteroglossia' according to Bakhtin.

$(10 \times 4 = 40$ marks$)$

Part B

Attempt any **one** *of the following.*
The question carries 10 marks.

13. There is more than one possible modernity – Examine the unsettled nature of the term modernity linking it to the ethos of philosophical and aesthetic modernism.

14. In the current scenario it makes sense to talk of the resurgence of modernity – not as a triumphant western project, but as a set of shares problems and predicaments that increasingly need to be addressed in global contexts – Discuss.

$(1 \times 10 = 10$ marks)

Ph.D. COURSE WORK EXAMINATION IN HINDI, JULY 2023

Course II—THEORY AND CONCEPT—HINDI

(2020 Admission onwards)

Time : Three Hours　　　　　　　　　　　　　　　　　　　　　　Maximum : 50 Marks

खंड 'क'

किन्हीं दस प्रश्नों के उत्तर लिखे ।

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. उत्तराधुनिकता की उपलब्धियाँ ।

2. विडंबना ।

3. उत्तर संरचनावाद ।

4. विखंडनवाद ।

5. नव उपनिवेशवाद ।

6. आधुनिकता, उत्तराधुनिकता तथा सांस्कृतिक संकट पर विचार करें ।

7. मार्क्सवादी विचारधारा और हिन्दी उपन्यास ।

8. कमलेश्वर की कहानियों में चित्रित महानगरीय बोध ।

9. पठित कहानियों के आधार पर नई कहानी के शैलिगत वैशिष्ट्य पर प्रकाश डालिए ।

10. समकालीन हिन्दी उपन्यास में चित्रित विस्थापन जनित समस्या की चर्चा करें ।

11. स्त्री-विमर्श के संदर्भ में समकालीन हिन्दी उपन्यासों की चर्चा करें ।

12. अस्तित्ववादी दर्शन के परिप्रेक्ष्य में मोहन राकेश के उपन्यासों पर विचार करें ।

$(10 \times 4 = 40 \text{ marks})$

Turn over

खंड 'ख'

किसी एक प्रश्न के उत्तर निबन्ध रूप में लिखें ।

Answer any **one** *of the following questions.*
The question carries 10 marks.

13. वैश्विक संस्कृति का प्रभाव और प्रतिरोध समकालीन हिन्दी कथा साहित्य में साफ दर्शनीय है—उक्त कथन का समर्थन कीजिए ।

14. हिन्दी भाषा तथा साहित्य पर सोश्यल मीडिया के प्रभाव की चर्चा करें ।

$(1 \times 10 = 10$ marks)

G 4099

Ph.D. COURSE WORK EXAMINATION IN HISTORY, JULY 2023

Course II—THEORY AND CONCEPT—HISTORY

(2020 Admission onwards)

Time : Three Hours

Maximum : 50 Marks

Part A

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. Describe the methodological approach to the history of Emotions putforth by Lucien Febvre and Peter Gay.

2. Examine the history of everyday life in the cotext of Micro history.

3. What is structuralism ?

4. Explain the problems and prospects of post-modernism.

5. Review the "Myth and Reality : Studies in the formation of India culture".

6. Explore the ideological background of Irfan Habib.

7. Estimate the models and concepts put forward by R.S. Sharma.

8. What is Geo-structuralism ?

9. Who put forward the concept of total history ?

10. Trace the contents of 'Age of Empire' authored by Hobsbawn.

11. How did Ranajit Guha become the pioneer of subaltern studies in India ?

12. Point out the role of Antonio Gramsci in the development of subaltern studies.

$(10 \times 4 = 40 \text{ marks})$

Part B

Answer any **one** *question.*
The question carries 10 marks.

13. Assess the role of history as the mother of all branches of knowledge.

14. What are the fundamental principles of historical materialism ?

$(1 \times 10 = 10 \text{ marks})$

G 4100

Ph.D. COURSE WORK EXAMINATION IN HOME SCIENCE, JULY 2023

Course II—THEORY AND CONCEPT—HOME SCIENCE

(2020 Admissions onwards)

Time : Three Hours

Maximum : 50 Marks

Part A

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. Write about counselling techniques and approaches used by the dietician.

2. Explain the role of Antioxidants and Phytochemical in promotion of health status.

3. Write a detailed note on types of diets.

4. Explain in detail about the recent trends in textile finishing.

5. Discuss about the eco-friendly textiles.

6. Discuss the development problem and disabilities occurring in childhood.

7. Write a note on problems of adolescents.

8. Discuss about changing needs and challenges of senior citizens in India.

9. Define work simplification. Write the importance and techniques of work simplification.

10. Define communication. Discuss the process of communication.

11. Discuss about the selection of ideal flooring and floor coverings in different rooms in the house.

12. What is the role of women entrepreneur in social and economic development ?

(10 × 4 = 40 marks)

Part B

Answer any **one** *question from the following.*
The question carries 10 marks.

13. Explain the values of play for the overall development for young children.

14. What is meant by food adulteration ? Explain in detail common adulterants present in various kinds of food.

(1 × 10 = 10 marks)

Ph.D. COURSE WORK EXAMINATION IN ISLAMIC HISTORY
JULY 2023

Course II—THEORY AND CONCEPT—ISLAMIC HISTORY

(2020 Admissions onwards)

Time : Three Hours

Maximum : 50 Marks

Part A

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. Identify Mappila literature as a paradigm for countercultures.

2. Analyze the cultural and religious dimensions of Islamic History.

3. Expound the recent prospects of women's history writing.

4. Assess the influence of Romantic relativism in the culture and development of a society.

5. Define the concept of post modernism and assess it reaction against modernism.

6. Elaborate the contribution of Ibn Rushd in Islamic Scholasticism.

7. Intricate Al Ghazali's thought on ethics of living in a society.

8. Evaluate the factors led to the decline of western civilizations, as enunciated by Toynbee.

9. Elucidate the application of Marxist dialectic in historical materialism.

10. Explicate the theory of Imamate by Al Mawardi.

11. Define the concept of "Annihilation of caste.

12. Assess the significance of Malabar Rebellion as an integrated nationalist movement.

$(10 \times 4 = 40$ marks)

Part B

Answer any **one** *question of the following.*
The question carries 10 marks.

13. Elaborate the syncretistic tendencies emerged in the medieval architecture.

14. Evaluate the concept of "Asabiyyah" by assessing its impact on the current Muslim Society.

$(1 \times 10 = 10$ marks)

G 4102

Ph.D. COURSE WORK EXAMINATION IN LAW, JULY 2023

Course II—THEORY AND CONCEPT—LAW

(2020 Admissions onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

Answer any **ten** *of the following questions.*
Each question carries 4 marks.

1. Narrate the importance of dissenting judgments.

2. Write a note on judicial self restraint.

3. What is epistolary jurisdiction ?

4. Briefly explain the importance of prospective overruling.

5. Describe the importance of obiter dicta.

6. Differentiate between decision per in curium and Sub silentio.

7. Analyse the need and importance of judicial discretion.

8. Examine the relevance of Article 142 of Constitution of India as a tool of judicial creativity.

9. Write a note on Wambough's test

10. Discuss the scope of judicial process in civil law system.

11. Write a note on judicial independence

12. Define doctrine of stare decisis

(10 × 4 = 40 marks)

Part B

Answer any **one** *of the following questions.*
The question carries 10 marks.

13. What do you understand by the term "Judicial Process' ? How can it serve as an instrument of social ordering. Explain it in the Indian context.

14. Examine the political nature of judicial review.

(1 × 10 = 10 marks)

G 4103

Ph.D. COURSE WORK EXAMINATION IN MALAYALAM, JULY 2023

Course II—THEORY AND CONCEPT—MALAYALAM

(2020 Admission onwards)

Time : Three Hours   Maximum : 50 Marks

Part A

പത്ത് ചോദ്യത്തിന് ഈരണ്ടു പുറത്തിൽ കവിയാതെ ഉത്തരമെഴുതുക.

ഓരോ ചോദ്യത്തിനും 4 മാർക്കു വീതം.

1. മലയാള ഭാഷാസംബന്ധമായ ആദ്യ വ്യാകരണ രചനയായി ലീലാതിലകത്തെ പരിഗണിക്കാമോ ? വ്യക്തമാ ക്കുക.

2. ആനുവംശികം, കക്ഷ്യാപരം എന്നിങ്ങനെയുള്ള ഭാഷാവർഗീകരണത്തിന്റെ അടിസ്ഥാന തത്വങ്ങൾ ഏതെല്ലാം ?

3. "പാട്ടിന്റെയും മണിപ്രവാളത്തിന്റെയും സംയോജനമാണ് എഴുത്തച്ഛൻ തന്റെ കൃതികളിൽ നിർവ്വഹിച്ചത്" —ഉപപാദിക്കുക.

4. ഐക്യ കേരള പ്രസ്ഥാനത്തിന്റെ രാഷ്ട്രീയവും സാംസ്കാരികവും സാമൂഹികവുമായ അടിസ്ഥാനങ്ങൾ ഏവ ?

5. സമൂഹത്തിലെ അധികാര ഘടനയെ നിർവ്വചിക്കുന്നതിലും നിർവഹിക്കുന്നതിലും ഭാഷ വഹിക്കുന്ന പങ്കെന്ത് ?

6. വൃത്ത പഠനത്തിന് ആധാരമാക്കാവുന്ന രണ്ടു മലയാള കൃതികൾ പരിചയപ്പെടുത്തുക.

7. നവോത്ഥാനം കേരളീയ സമൂഹത്തിൽ വരുത്തിയ സാമൂഹിക സാംസ്കാരിക പരിവർത്തനങ്ങൾ വിവരിക്കുക.

8. കല കലയ്ക്കു വേണ്ടി എന്ന വാദത്തിനു പിന്നിലുള്ള സൗന്ദര്യദർശനം വിശദീകരിക്കുക.

9. കേരള സംസ്കാര ചരിത്രത്തിൽ മിഷനറിമാരുടെ പ്രവർത്തനങ്ങൾ സൃഷ്ടിച്ച പരിവർത്തനങ്ങൾ ഏതെല്ലാം ?

10. സാഹിത്യം, സമൂഹം, സൗന്ദര്യബോധം എന്നിവയെക്കുറിച്ചുള്ള പുരോഗമന സാഹിത്യ പ്രസ്ഥാനത്തിന്റെ കാഴ്ചപ്പാടുകൾ പരിശോധിക്കുക.

11. ആചാരാനുഷ്ഠാനങ്ങൾ സംസ്കാര സൂചകങ്ങളാകുന്നതെങ്ങനെ ? സോദാഹരണം വ്യക്തമാക്കുക.

12. കേരളീയ ദൃശ്യകലകളെക്കുറിച്ചുള്ള പഠനത്തിൽ അന്തർ വിജ്ഞാനീയ സമീപനത്തിനുള്ള സാധ്യത എത്രമാത്രം? വിശദീകരിക്കുക.

$(10 \times 4 = 40$ marks$)$

Part B

ഒരു ചോദ്യത്തിന് നാല് പുറത്തിൽ കവിയാതെ ഉത്തരമെഴുതുക.

ഈ ചോദ്യത്തിന് 10 മാർക്ക്.

13. കേരളത്തിന്റെ ചരിത്ര-സാംസ്കാരിക-സാമൂഹിക പഠനത്തിന് പ്രാചീന മധ്യകാല മണിപ്രവാള കൃതികൾ എത്രത്തോളം സഹായകമാണ് ? പരിശോധിക്കുക.

14. നവമാധ്യമങ്ങളുടെ സംസ്കാര നിർമ്മിതി സമകാലിക മലയാള സാഹിത്യത്തിൽ എങ്ങനെ പ്രതിഫലിക്കുന്നു ? പരിശോധിച്ചു മൂല്യനിർണയം ചെയ്യുക.

$(1 \times 10 = 10$ marks$)$