

These sample papers are for indicative purpose only. The pattern may change without prior notice. Candidates are expected to have knowledge of the relevant and related discipline at the Masters level.



Indian Institute of Technology Guwahati
Department of Humanities and Social sciences

PHD Entrance Test
Sub: Development Studies
Total Points: 50

Time: 2 Hrs

1. Discuss the issues raised by the various movements against hydropower projects across India, and the model of development that they put forward.(25)
2. Discuss the background of the Green Revolution. What are the benefits and costs of Green Revolution?(5 +20)



Indian Institute of Technology Guwahati
Department of Humanities and Social sciences

PHD Entrance Test
Sub: Economics

Broad Syllabus for Written Test:

Mathematics: Limit and Continuity, Optimization, Linear Algebra

Statistics: Descriptive Statistics, Probability, Regression Analysis.

Micro: Consumer Behaviour, Producer Behaviour, Markets.

Macro: Simple Keynesian Model, IS-LM model, Monetary and Fiscal policies

Development Economics: Growth models, Inequality, Poverty, Migration, Population.

Indian Economy: Relevant Topics

A sample paper is attached below. It is only for indicative purpose. You can use non programmable calculator during the exam.

Total Points: 40

Time: 2 Hrs

There are Three Parts in the Examination. Completion of Part C is compulsory. Part A is to be done in one answer script. Use a different script for Parts B and C.

Part A

1. The market demand curve is given by $p = a - bQ$, where p, Q have usual interpretations. There are two firms in the market, each having a constant marginal cost of 'c' per unit. If the quantities produced by each firm are q_1 and q_2 , then $Q = q_1 + q_2$. Assume these firms practice Cournot competition. What are the equilibrium price and quantity produced by each firm?

[5]

2 Consider the IS-LM model. Instead of the exogenous money supply, suppose the Central Bank follows a rule: money supply is increasing with interest rate. Show that compared to the exogenous money supply case, the LM curve will be flatter and fiscal policy more effective. [5]

3 Explain the concept of 'balanced budget multiplier' in the context of simple Keynesian model. [5]

4 A particular linear regression ('units' = $\alpha + \beta * \text{'minutes'}$) yields the following result:

. reg units minutes

Source	SS	df	MS			
Model	112.567841	1	112.567841	Number of obs =	14	
Residual	1.43215942	12	.119346618	F(1, 12) =	943.20	
Total	114	13	8.76923077	Prob > F =	0.0000	
				R-squared =	0.9874	
				Adj R-squared =	0.9864	
				Root MSE =	.34547	

units	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
minutes	.0636696	.0020731	30.71	0.000	.0591526	.0681866
_cons	-.189594	.221682	-0.86	0.409	-.6725976	.2934096

- Which coefficients are statistically significant and why?
- What is the interpretation of P value?
- What is the significance of the 95% confidence interval?
- Comment on the F statistic as reported on the top right corner.

[2+3+2+3=10]

Part B

5 What is Kuznet's hypothesis on inequality? Discuss the conceptual merits and limitations of the hypothesis for present day developing countries. [15]

Part C

(Not Graded, but Compulsory)

- Briefly (10 sentences max) identify your research topic(s) and why are you interested in those.



Indian Institute of Technology Guwahati
Department of Humanities and Social Sciences

Ph. D Entrance Test, 29 May 2018

Subject: History

Total Marks: 50

Time: 1½ Hours

Section A

1. Write a short description of 500 words on the topic of research that you propose to undertake for Ph. D. (25 Marks)

Section B

2. Given below are four archival materials. **Choose any one of them** and critically analyze it in 500 words. (25 Marks). As you critically analyze it, keep in mind the nature and politics of the source material and how it may enable us to understand the past.

- A. These are two separate excerpts from the works of two European anthropologists who wrote extensively on the Nagas of northeast India.

“...the language used in songs is often archaic, and sometimes the meaning has been entirely forgotten. Where it is remembered the meaning of the song as a whole is often obscure, as the composer of a song uses disconnected words which mean much to him but convey little to those who cannot follow his thought and do not know to what he is alluding. Even newly composed songs often need their composer to explain exactly what it is all about, and trying to translate them with the aid of someone who does not happen to know, is rather like trying to disentangle a difficult chorus of Aeschylus.” (J. H. Hutton, *The Sema Nagas*, 1921: 362)

“In many cases it was impossible to ascertain the exact meaning of a word or a phrase, and this was not only due to the limitations of Naga-Assamese, but also to the fact that the poetical language of the Konyaks is very different from the idiom in daily use. And just as the spoken language varies from village to village so greatly that within a radius of ten miles one may find three distinct dialects, so too differ the poetical idioms not only of villages, but even of individual morung or men's houses, the main social units of Konyak villages. Thus many songs are fully understandable only to a limited circle and even the singers can often not explain the meaning of each word. ‘This is the way we sing’, they say, but in speaking we never use these words, and we cannot tell what exactly they mean.” (Christoph Furer-Haimendorf, ‘The Role of Songs in Konyak Culture’, *Man in India*, 1943, 13 (1): 69-80)

B. Below is a 2018 screenshot from www.fineartamerica.com, a website that claims to be “the World's Largest Art Marketplace and Print-On-Demand Technology Company” in operation since 2006.

Background Information:

The image that the website describes as the “picturesque illustrations of ancient architecture in hindostan” is a digital reproduction of one of the 24 large-sized lithographs from James Fergusson's illustrated book titled Picturesque Illustrations of Ancient Architecture in Hindostan (1848). The book had 70 pages of scholarly text by Fergusson accompanying the lithographs of stone-built architecture in India. This specific reproduction depicts the 13th-century Sun Temple at Konark that was declared a UNESCO World Heritage Site in 1984.

A British administrator turned architectural historian, James Fergusson (1808-1886) traveled extensively across India from 1837 through 1839 and meticulously documented Indian architectural specimens. He was a pioneer in recognizing architecture as a form of ‘fine art’ as well as a new scientific and professional discipline.

The screenshot shows the Fine Art America website interface. At the top, the navigation bar includes the site name 'FINEARTAMERICA.COM', menu items 'ART HOME TECH', and 'SELL CREATE DISCOVER'. Below this, there are links for 'Shop', 'Collections', 'Subjects', 'Community', and 'About', along with 'Help', 'Sign In', and 'Join'. The main content area features a large lithograph of the Sun Temple at Konark, India. To the right of the image is a product listing with the title 'Picturesque Illustrations Of Ancient Architecture In Hindostan' by Fergusson, James. Below the title, there are category icons and prices: 'Wall Art' for \$12, 'Home Decor' for \$24, 'Lifestyle' for \$24, and 'Stationery' for \$3. At the bottom of the image, there is a small caption: 'Picturesque Illustrations Of Ancient Architecture In Hindostan - a painting by Fergusson James. Size: 441 (updated on April 26th, 2018)'.

C. Below are facsimiles of the preface and the page of content from Ernest Binfield Havell's book titled *The Basis for Artistic and Industrial Revival in India* (Madras: Theosophist Office, 1912).

Background Information: E. B. Havell (1861-1934) was the principal of the Government School of Art, Calcutta from 1896 to 1905 and was one of proponents of the early – twentieth century nationalist art movement popularly known as the “Bengal School of Art.”

PREFACE

CONTENTS

In the following pages, originally written in a series of letters to *The Hindu* of Madras, I have endeavoured to set down in a form intelligible to expert and non-expert the results of twenty years' practical experience in all teaching in India, hoping that they may be useful in promoting the cause I have at heart—the revival of Indian art and craft.

As Lord Minto declared recently, the most pressing questions of the moment in India are educational, sociological and industrial. All three are closely involved in the future of Indian art and craft, the preservation of which is not only vital to India but is a matter of international importance; for the possibility of building upon the basis of Indian civilisation and culture, a better social and industrial system than that which now exists in Europe is a matter which concerns all nations. In Great Britain national art education is a problem of which a satisfactory solution has yet to be found. In India, where the difficulties should be infinitely less, as the opportunities are so much greater, it can hardly be said with truth that it has ever received serious consideration from the Indian point of view.

E. B. HAVELL

LONDON
February, 1912

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D. This is an excerpt from the autobiography of Daya Pawar, titled *Baluta*. It was one of the first Dailt autobiographies to be written. It was originally written in Marathi and published in 1978, and translated into English by Jerry Pinto in 2015.

“Whatever I say about the Maharwada feels inadequate. Even though I lived there as a child, I always felt an alien. The apathy and the depression I felt in the village evaporated when I came to the taluka.

Every day, I had a three-mile trudge to the school and back. There were three or four Maratha boys who accompanied me. We were the first generation to go to the taluka school. I was the only one from the Maharwada. The Maratha boys were solidly built. One of them seemed a full grown man, complete with facial hair. In front of him, I looked like a lamb. I was always careful in the way I behaved with him. Being aware

of my status in society seemed to come naturally; it was bred in the blood. These village boys did not treat me as an equal. They were swollen with the pride of being born in a high caste. When I was insulted on the basis of my caste, I would feel as if the fuse of an explosive device had begun to sputter inside me. I didn't have the guts to say anything. I simply did not walk with them, either dropping behind or walking ahead.

But once I was in school, I was free as a bird. In comparison to the one-room village school, this school seemed rather posh. It looked like something out of a big Balbharati text book. It has a tiled roof. In front, a big maidan dappled by the deep shade of banyan and neem trees. I had just entered the fifth standard..." (pp. 85-86).



Indian Institute of Technology Guwahati
Department of Humanities and Social sciences

PIID Entrance Test
Sub: Linguistics

Total Points: 50

Time: 2 Hrs

1. Briefly describe language contact phenomenon, emphasize on the most notable outcomes of such contact. Point out some interesting features of language contact in India and why they are different.

4+4

2. What is a creole? Differentiate between pidgins and creoles. How does innateness hypothesis find a support in the development of creoles?

2+2+4

3. Describe complementary and contrastive distribution of sounds. How can they help in determining phonemes and allophones? Explain with examples.

3

4. How do formants help in determining vowel quality? Explain with examples. 3

5. Please write the IPA symbols for the following descriptions:

a. Voiceless, alveolar, stop b. voiced, labio-dental, fricative c. high, back, rounded vowel

d. Voiceless, glottal, fricative 4

6. Draw two constituent trees demonstrating the ambiguity in the sentence "Megha saw the elephant with a telescope". 4

7. Write short notes on:

a) Speech perception b) Tone languages 2 x 2 = 4

8. What are the consonant sounds of English which fall in the following natural classes? Provide appropriate symbols. 3

a) [+sonorant]

b) [+continuant]

d) [+coronal]

9. Draw the syllable structure of the following two words: 3
i) a) balcony b) constant
ii) Show whether the two words obey the principles of a) Onset Maximization and
b) Sonority sequencing 2
10. Explain with two relevant examples from Sapir (1933) which clearly show the 'psychological reality of phonemes'. 3
11. Draw a diagram of the vocal tract and show all the places of articulation 2
12. Assume a language with the following consonant system, and give the minimum feature specification (common features) of the sets of consonants listed in (a) through (c). 3
- | | | | | |
|--|---|---------------------------------|------------------|---|
| | p | p ^h t t ^h | k k ^h | |
| | b | d | g | |
| | | | s | |
| | m | | n | |
| | w | | l | r |
- a) {p t k}
b) {p p^h t t^h k k^h s}
c) {m n l r w}



Indian Institute of Technology Guwahati
Department of Humanities and Social sciences

PHD Entrance Test

Sub: Philosophy

Total Points: 50

Time: 2 Hrs

(Answer Group A and Group B in two separate answer scripts)

GROUP A (answer any 2 questions from Group A)

Marks: 30

1. Write a note on Plato's theory of knowledge with special emphasis on the doctrine of Forms and the Allegory of the Cave.
2. Critically examine Cartesian position on 'cogito ergo sum' with reference to the Method of Doubt. Write a critical note on Cartesian dualism or the philosophy of Mind-Body interactionism. How is mind related to the body?
3. Write short notes on any two of the following:
 - (a) Distinction between *phenomena* and *noumena* in the philosophy of *Immanuel Kant*
 - (b) Phenomenology of *Edmund Husserl*
 - (c) Existentialism of *Jean Paul Sartre* .

GROUP B

Marks: 20

I. Answer the following:

1. If "No flowers in the park are fragrant flowers" is false, write and find out the truth value of the other propositions.
2. Check the validity of the following:
 - A. Some popular policies are not welfare-centered policies because All growth-oriented policies are welfare-centered policies and Some popular policies are not growth-oriented policies.
 - B. All transgenic animals are manmade and hence they are patentable.

II. See if the following arguments are sound. Justify your answer. (max. 10 lines for each answer)

1. I believe in the Bible because it is the written word of God through his prophets. Obviously, God would not lie to his prophets. After all, the Bible says so.
2. There's no reason to take seriously Nietzsche's ideas about the Superman. Weak and sickly all his short life, of course he found this concept captivating.

III. Match the following (Write answers in the question paper)

S . N o .			A n s w e r s
1	N o u m e n a	M a d h w a	
2	Q u a l i f i e d m o n i s m	J a i m i n i	
3	N i r v a n a	K a n t	
4	E m p i r i c i s t	R a m a n u j a	
5	P r a k r t i	J . K r i s h n a m u r t h y	
6	M i m a m s a	L o c k e	
7	M o n a d s	S p i n o z a	
8	B e i n g - i n - i t s e l f	K a n a d a	

9	C r i t i c	S a n k h y a	
10	O n t o l o g i c a l a r g u m e n t	B u d d h i s m	
11	T h e f i r s t a n d l a s t f r e e d o m	A r i s t o t l e	
12	D a s e i n	H e i d e g g e r	
		S a r t r e	
		S o c r a t e s	
		L e i b n i t z	
		H u m e	
		A n s e l m	
		D a y a K r i s h n a	



Indian Institute of Technology Guwahati
Department of Humanities and Social sciences

**PHD Entrance Test,
Sub: Psychology**

Total Score: 50

Total Time: 2 Hrs

1) How scientific knowledge derived from research in Psychology can be used for finding practical solutions of daily life? Give appropriate realistic examples to support your answer. [15]

2) Write a brief research proposal considering following requirements: [20]

- a) At least one Independent variable and one dependent variable
- b) It should have clear objective
- c) Rationale for objective
- d) Research Design
- e) Tools (which are required to conduct the research)
- f) Sample
- g) Possible contribution of the research

Multiple-choice questions

(1x15=15)

1. An operant conditioning procedure that involves the positive reinforcement of successive approximations of an initially improbable behavior to eventually bring about that behavior is known as:
- a) Shaping
 - b) Secondary Reinforcer
 - c) Primary Reinforcer
 - d) Discriminative Stimulus
2. The sensory memory, known as _____ memory, stores auditory information lasting up to 4 or more seconds
- a) Iconic
 - b) Echoic
 - c) Tactile
 - d) Random Access

3. A child who has a balloon burst in his face squints whenever he blows up a balloon. The first time the child saw an expanding balloon it served as a(n) _____ and the second time it was a(n) _____.
Which of the following options most accurately fits the spaces?
a) UCR; CR b) CS; UCS
c) UCR; Neutral Stimulus d) Neutral Stimulus; CS
4. To determine whether results are statistically significant, what might the experimenter do?
a) Examines the performance of the control group
b) Constructs a scatterplot
c) Calculates the likelihood that the difference in mean scores was caused by chance
d) Repeats the experiment
5. If the results of an experiment are statistically significant, what may we conclude?
a) Experiment was important
b) Results were probably not due to chance
c) Dependent variable had an effect on the independent variable
d) Operational definitions were reliable
6. Which one of the following statements about fissures and gyri is true?
a) Are pathways for cerebrospinal fluid
b) Separate the brain from the skull
c) Increase the surface area of the brain
d) Line the ventricles
7. Lateralisation of function refers to the fact that the two sides of the brain do which of the following?
a) Do not perform identical functions
b) Perform identical functions
c) Receive information from the opposite side of the body
d) Operate independently
8. A stimulus with a value of 1 jnd is just above which of the following?
a) Absolute threshold b) Response bias
c) Receiver-operating characteristic d) Difference threshold
9. You have recently moved house and are experiencing great difficulty in learning your new telephone number. Every time you try to remember your new number, you think of your old one instead. This is an example of what?
a) Cognitive dissonance b) Proactive Interference
c) Displacement d) Retroactive Interference

10. Emma goes to the gym most days and she believes that a majority of her peers also exercise regularly, although this is not actually the case. What is the error called that Emma is committing?
- a) Actor-observer effect
 - b) False consensus
 - c) Attributional bias
 - d) Self-serving bias
11. The first time Rosa visited a friend's home, they walked around his vegetable garden and she noted the many varieties of tomatoes he grew. She was surprised to learn later that he did not like to eat fresh tomatoes. Her surprise was the result of which of the following?
- a) Representativeness heuristic
 - b) Base-rate fallacy
 - c) Availability heuristic
 - d) False consensus
12. Which of the following statements about emotions is true?
- a) Always occur immediately after the stimuli that elicit them
 - b) Do not occur spontaneously
 - c) Are independent of cognitive processes
 - d) Are elicited by neutral stimuli
13. When faced with the prisoner's dilemma, the best joint outcome is which of the following?
- a) Neither suspect A or B to confess
 - b) Suspect A (but not suspect B) to confess
 - c) Suspects A and B both to confess
 - d) Suspect B (but not suspect A) to confess
14. What are the implications of inferring causality from a correlation?
- a) Dangerous, as the correlation may be spurious
 - b) There is no way of inferring the direction of causality from a correlation alone. Other factors must be considered.
 - c) Two (or more) variables may correlate either positively or negatively, this does not imply causality.
 - d) All of the above.
15. What is a common way of controlling extraneous variables in an experiment?
- a) Random assignment
 - b) Double-blind procedure
 - c) Single-blind procedure
 - d) Using animal subjects



Department of Humanities and Social Sciences, IIT Guwahati
PhD Entrance Test,
English
07 December 2017

Total Marks: 50

Time: 90 mins

ANSWER BOTH GROUP A AND GROUP B

USE A SEPARATE ANSWER SHEET FOR EACH GROUP

GROUP A

Answer any ONE of the following (25):

1. Discuss any one of the following topics with close reference to the works of one or two writers:
 - a. Post-independence Indian drama in English translation
 - b. Eco-criticism and/vs Postcolonial theory
 - c. Subaltern Literature

2. Do a comparative reading of any two Post-Independence Indian or South Asian novels that engage with any one of the following themes:
 - a. The rural/urban divide
 - b. The changing form of Indian family and kinship
 - c. Questions of gender and sexuality.

GROUP B

Attempt a critical reading of the following poem (25):

Eating Poetry

—Mark Strand (1934 – 2014)

Ink runs from the corners of my mouth.
There is no happiness like mine.
I have been eating poetry.

The librarian does not believe what she sees.
Her eyes are sad
and she walks with her hands in her dress.

The poems are gone.
The light is dim.
The dogs are on the basement stairs and coming up.

Their eyeballs roll,
their blond legs burn like brush.
The poor librarian begins to stamp her feet and weep.

She does not understand.
When I get on my knees and lick her hand,
she screams.

I am a new man.
I snarl at her and bark.
I romp with joy in the bookish dark.
