

No. of Printed Pages : 2

**MVEI-012**

**POST GRADUATE CERTIFICATE IN  
INFORMATION AND ASSISTIVE  
TECHNOLOGIES FOR INSTRUCTORS OF  
VISUALLY IMPAIRED (PGCIATIVI)**

**Term-End Examination**

**December, 2014**

00393

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

**Note :** All questions are *compulsory*. All questions carry equal weightage.

1. Answer the following question in about 600 words.

- (a) People with visual impairment (VI) may enhance their productivity by using modern assistive and adaptive technologies. Discuss the above statement by citing examples.

**OR**

- (b) Discuss the "User Agent Accessibility Guidelines" (UAAG).

2. Answer any **four** of the following in about 150 words each :

- (a) What is “Pragnya Sketching Device” ?
- (b) What are the indigenous assistive and adaptive equipments/devices for persons with visual impairment ?
- (c) Why does W3C recommend use of WCAG 2.0 instead of WCAG 1.0 ?
- (d) What is ergonomics ?
- (e) How can e-books and audio-books be used by persons with visual impairment ?
- (f) What is screen magnifier ?

3. Answer the following question in about 600 words.

Re-engineering or modification of available devices and technologies (universal design) helps people with visual impairment. Discuss the above statement with examples.

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**MVEI-012**

00204

**POST GRADUATE CERTIFICATE IN  
INFORMATION AND ASSISTIVE  
TECHNOLOGIES FOR INSTRUCTORS OF  
VISUALLY IMPAIRED (PGCIATIVI)**

**Term-End Examination**

**June, 2015**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

**Note :** (i) *All questions are compulsory.*

(ii) *All questions carry equal weightage.*

1. Answer the following in about 600 words :  
What is 'Universal Design (UD)' ? Discuss the principles and guidelines of UD.

**OR**

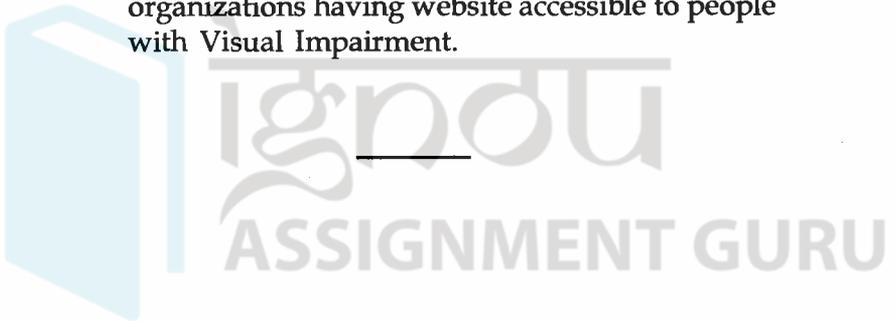
Discuss various Adaptive and Assistive Technologies for students with Visual Impairment (VI).

2. Answer **any four** of the following in about 150 words each :
- (a) Write any two developers' contribution to assistive and adaptive technologies.
- (b) Describe the indigenous assistive and adaptive technologies.

- (c) How does Global Positioning System (GPS) help the persons with Visual Impairment ?
- (d) Discuss the changes in Information and Communication technologies.
- (e) What are the 'User Agent Accessibility Guidelines' ?
- (f) What is 'Refreshable Braille Display' ?

3. Answer the following in about **600** words :

What are the points to be considered while making the website accessible ? Make a list of organizations having website accessible to people with Visual Impairment.



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VISUALLY IMPAIRED (PGCIATIVI)

Term-End Examination

December, 2015

MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES

Time : 2 hours

Maximum Weightage : 35%

Note : All questions are compulsory. All questions carry equal weightage.

1. Answer the following question in about 600 words.

Explain the new opportunities in Information and Communication Technologies (ICT) for persons with disabilities.

OR

What do you understand by 'Authoring Tool Accessibility Guidelines (ATAG)' ? Explain.

2. Answer any four of the following in about 150 words each.
- Screen magnifiers and it's features.
  - Briefly describe various adopted 'clocks and watches'.

- (c) What is the importance of 'Talking Book Library' ? Name the places in India where such libraries exist.
- (d) Accessible design can sometimes decrease costs. Explain.
- (e) Methods of website accessibility audits.
- (f) What is Optical Character Recognition (OCR) ? Explain it's features.

3. Answer the following in about **600** words.

What are assistive and adaptive technologies ?  
What is the status of availability and usage of assistive and adaptive technologies in India ?



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**MVEI-012**

00588

**POST GRADUATE CERTIFICATE IN  
INFORMATION AND ASSISTIVE  
TECHNOLOGIES FOR INSTRUCTORS OF  
VISUALLY IMPAIRED (PGCIATIVI)**

**Term-End Examination**

**June, 2016**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

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- Note :** (i) *All questions are compulsory.*  
(ii) *All questions carry equal weightage.*
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1. Answer the following question in about 600 words.

Discuss the 'Principles of Universal Design (UD)' for better accessibility in built environment, products and communications. Give suitable examples.

**OR**

Define Assistive and Adaptive Technologies and state the difference between them with suitable examples.

2. Answer **any four** of the following questions in about 150 words each.
- (a) Explain Geography Devices.  
(b) What does PWD Act 1995 state about 'Assistive and Adaptive Technologies' ?

- (c) Explain Digital Accessible Information System (DAISY).
- (d) What are the rules of ergonomics on designing products ?
- (e) How is 'e-book' different from an 'audio-book' ?
- (f) Explain Web Content Accessibility Guidelines (WCAG).

3. Answer the following question in about 600 words.

What is 'National Knowledge Network (NKN)' ? How NKN can play a vital role in integrating the institutions working for the persons with disabilities ? Explain and suggest various ways to make NKN successful in our country.

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**POST GRADUATE CERTIFICATE IN  
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**Term-End Examination**

**December, 2016**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

*Note : All questions are compulsory. All questions carry equal weightage.*

1. Answer the following question in about 600 words :

Explain various assistive and adaptive technologies available for persons with visual impairment.

**OR**

Discuss various methods of auditing accessibility to any website.

2. Answer **any four** of the following in about 150 words each :
- Describe various adopted clocks and watches for people with visual impairment.
  - Accessible design can sometimes decrease costs. Explain.

- (c) What is WCAG ?
- (d) What are the constraints of 'Universal Design' ? How we can overcome ?
- (e) What is a Virtual Computer ?
- (f) What is GPS ?

3. Answer the following in about **600** words :

In the light of ICT accessibility to persons with visual impairment, discuss, new opportunities, Concerns and issues regarding changes in ICT.



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00110

**POST GRADUATE CERTIFICATE IN  
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VISUALLY IMPAIRED (PGCIATIVI)**

**Term-End Examination**

**June, 2017**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

*Note : All questions are compulsory. All questions carry equal weightage.*

1. Answer the following question in about 600 words.  
Explain the role of ICT in improving accessibility of persons with disabilities.

**OR**

How to make website accessible—explain various tools and methods used for it.

2. Answer **any four** of the following in about 150 words each :
- What is ATAG ?
  - What is OCR ?
  - What is the importance of 'Talking Book Library' ?
  - What is 'Ergonomics' ?
  - What are the Principles of 'Universal Design' ? List any five Principles.
  - What is DAISY ?

3. Answer the following question in about 600 words.

What are the assistive and adaptive technologies in India? Identify and explain any two devices which can be modified for the usage of a Visually Impaired Person.

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**MVEI-012**

00445

**POST GRADUATE CERTIFICATE IN  
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VISUALLY IMPAIRED (PGCIATIVI)**

**Term-End Examination**

**December, 2017**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

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*Note : All questions are compulsory. All questions carry equal weightage.*

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1. Answer the following question in about 600 words :

Define Assistive and Adaptive technology. Explain various traditional/low cost assistive devices for the visually impaired persons.

**OR**

People with Visual Impairment (V.I.) may enhance their Productivity by using modern assistive and adaptive technologies. Discuss the above statement by citing examples.

2. Answer any four of the following in about 150 words each :

- (a) Explain 'ergonomics' and its basic aspects.
- (b) Enlist the potential applications, which can decrease the functional limitations of a person with a disability.
- (c) What are the principles of 'universal design' ?
- (d) List few conventions regarding Assistive Technology and Information and Communication Technology.
- (e) Explain the smart technologies for people with disabilities.
- (f) Describe the need and importance of web accessibility.

3. Answer the following in about 600 words :

What is Web Accessibility ? Define web and digital documents accessibility guidelines for different components developed by the World Wide Web Consortium (W3C), Web Accessibility Initiatives (WAI).



- (b) What is Braille embosser ? How it works ?
- (c) Explain the traditional mathematical devices for the persons with visual impairment.
- (d) United Nations (UN) released Conventions on the rights of persons with disabilities in 2006. Elaborate the points stated in the conventions regarding 'Assistive Technologies'.
- (e) What is Website Accessibility Audit ? List few methods used for this.
- (f) Discuss the emerging technology trends that are causing accessibility problems.

3. Answer the following question in about 600 words :

Write a brief note on new opportunities in information and assistive technology. What are the Barriers, Concerns and Issues regarding this ?

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00491

**POST GRADUATE CERTIFICATE IN  
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VISUALLY IMPAIRED (PGCIATIVI)**

**Term-End Examination**

**December, 2018**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

*Note : All questions are compulsory. All questions carry equal weightage.*

1. Answer the following question in about **600** words :

What is technology ? Describe Assistive and Adaptive technologies with examples.

**OR**

What are the software and hardware equipments adepted for persons with visual impairment ? Describe.

2. Answer **any four** of the following in about **150** words each :

- (a) Write a short note on Authoring Tool Accessibility Guidelines (ATAG).  
(b) What is User Agent Accessibility Guidelines (UAAG) ?

- (c) Briefly list the principles of Universal Design (UD).
- (d) What are the different mobility devices ?
- (e) List various communicative, listening and alerting devices and briefly describe them.
- (f) How can websites be made accessible for persons with disabilities ?

3. Answer the following in about 600 words :

What do you understand by 'Ergonomics' ?  
Discuss the basic aspects of ergonomics that you consider while designing a product.



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**MVEI-012**

**POST GRADUATE CERTIFICATE IN  
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VISUALLY IMPAIRED (PGCIATI)  
Term-End Examination**

**June, 2019**

00652

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

**Note :** *All questions are **compulsory**. All questions carry equal weightage.*

1. Answer the following question in about 600 words :

What are assistive and adaptive technologies ?  
Differentiate between traditional and modern assistive and adaptive technologies.

**OR**

What is WCAG ? Discuss various guidelines and principles related to WCAG.

2. Answer any **four** of the following questions in about 150 words each :

- (a) Write a short note on 'DAISY'.
- (b) Describe various 'Screen Magnifiers'.
- (c) What is 'Refreshable Braille Displays' ?
- (d) Describe various devices used in teaching-learning of geography by students with visual impairment.
- (e) What is 'Assistive Technology' ?
- (f) List various technologies for persons with visual impairment and low vision.

3. Answer the following question in about 600 words :

What are the new trends in 'Information and Assistive Technology' for persons with visual impairment ? Discuss newer opportunities beneficial for them.

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POST GRADUATE CERTIFICATE IN INFORMATION AND ASSISTIVE  
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(PGCIATIVI)

Term-End Examination

December, 2019

MVEI-012 : ASSISTIVE AND ADAPTIVE TECHNOLOGIES

Time : 2 hours

Maximum Weightage : 35%

- Notes : (i) All questions are compulsory.  
(ii) All questions carry equal weightage.

Answer the following question in about 600 words :

1. What is Universal Design ? Discuss the principle of the 'Universal Design'.

OR

What are the essential components of Web accessibility ? What are the guidelines for different components ? Explain.

2. Answer any four of the following in about 150 words each :
- Name any two pioneers of assistive and adaptive technologies.
  - What are the rules to be taken care as per ergonomics while designing products ?
  - How GPS system is different from Accessible Pedestrian Signals (APS) ?
  - How an e-book is different from an audiobook ?
  - Write a brief note on WCAG 2.0.
  - How a 'text browser' is different from a 'voice browser' ?

Answer the following question in about 600 words :

3. Make a list of assistive and adaptive technologies in India. How can you enhance the use of such technologies ? Discuss.

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**MVEI-012**

**POST GRADUATE CERTIFICATE IN  
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TECHNOLOGIES FOR INSTRUCTORS  
OF VISUALLY IMPAIRED (PGCIATVI)**

**Term-End Examination**

**June, 2020**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 Hours      Maximum Weightage : 35%*

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*Note : (i) All questions are compulsory.*

*(ii) All questions carry equal weightage.*

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1. Answer the following question in about  
600 words :

What do you understand by 'Digital Accessible  
Information System' (DAISY) ? Discuss.

[2]

Or

Explain the role of ICT in improving the accessibility of persons with disabilities.

2. Answer any *four* of the following questions in about 150 word each :

- (a) Write a brief note on 'daily living aids'.
- (b) How does an accessible design decrease cost ?
- (c) Write a brief note on 'Augmentative and Alternative Communication (AAC)'.
- (d) Write a brief note on 'National Knowledge Network'.
- (e) What is OCR ?
- (f) Discuss Web Content Accessibility Guidelines (WCAG).

3. Answer the following question in about 600 words :

What is Assistive Technology ? Explain the range and scope of Assistive Technology.

**POST GRADUATE CERTIFICATE IN  
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Term-End Examination**

**February, 2021**

**MVEI-012 : ASSISTIVE AND ADAPTIVE  
TECHNOLOGIES**

*Time : 2 hours*

*Maximum Weightage : 35%*

**Note :** *All questions are **compulsory**. All questions carry equal weightage.*

1. Answer the following question in about 600 words :

What do you understand by Adaptive Technology ? Enlist some modern assistive and adaptive technologies for the visually impaired.

**OR**

What are the essential components of web accessibility ? Explain with reference to web and digital accessibility guidelines.

2. Write short notes on any **four** of the following in about 150 words each :
- (a) Website accessibility audit
  - (b) Examples of indigenous assistive devices
  - (c) Use of low technology for meeting the needs of students with visual impairment
  - (d) Principles of Universal Design
  - (e) Different mobility devices for persons with visual impairment
  - (f) Electronic Reading Devices

3. Answer the following question in about 600 words :

List various barriers in teaching of persons with visual impairment. Explain how would Universal Design help in facilitating their learning.

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