



# हेमचंद यादव विश्वविद्यालय, दुर्ग (छ.ग.)

(पूर्व नाम- दुर्ग विश्वविद्यालय, दुर्ग)

रायपुर नौका दुर्ग (छ.ग.) 491001

ई मेल : [registrar@durguniversity.ac.in](mailto:registrar@durguniversity.ac.in)

वेब साइट : [www.durguniversity.ac.in](http://www.durguniversity.ac.in)

दूरभाष : 0788-2359100

## // अधिसूचना //

क्रमांक 1327 / गोपनीय / 2021

दुर्ग, दिनांक 24/11/21

हेमचंद यादव विश्वविद्यालय, दुर्ग द्वारा पी.एच.डी. कोर्सवर्क परीक्षा 2021 का आयोजन किया गया। परीक्षा परिणामों के पुनरावलोकन हेतु विश्वविद्यालय की माननीय कुलपति महोदया द्वारा गठित विशेषज्ञ समिति की अनुशंसा के आधार पर पी-एच.डी. कोर्सवर्क विषय- Microbiology में निम्नलिखित 02 शोधार्थी का परीक्षा परिणाम संशोधित करते हुए उन्हें अपात्र से पात्र घोषित किया जाता है:-

शोधार्थियों के विवरण इस प्रकार है:-

Sr. No.	Roll No.	Name of Student	Marks	Corrected Result	Remarks
01	2113002	MANSI V SAHU	56	QUALIFIED	
02	2113007	TWINKAL SHRIWAS	56	QUALIFIED	

संलग्न:-उपरोक्तानुसार।

कुलसचिव

हेमचंद यादव विश्वविद्यालय, दुर्ग (छ.ग.)

पृ.क्र. 1328 / गोपनीय / 2021

प्रतिलिपि:-

दुर्ग, दिनांक 24/11/21

1. संबंधित समस्त शोध केन्द्र, हेमचंद यादव विश्वविद्यालय, दुर्ग को सूचनार्थ।
2. माननीय कुलपति के सचिव/कुलसचिव के निज सहायक, हेमचंद यादव विश्वविद्यालय, दुर्ग को सूचनार्थ।

उपकुलसचिव

हेमचंद यादव विश्वविद्यालय, दुर्ग (छ.ग.)

# HEMCHAND YADAV VISHWAVIDYALAYA, DURG (C.G.)

## Ph.D. Coursework Examination 2021

माननीय कुलपति महोदया द्वारा गठित विषय विशेषज्ञ समिति के द्वारा पुनरावलोकन उपरांत पी-एच.डी. कोर्सवर्क लिखित परीक्षा 2021 में शोधार्थियों के प्राप्तांक निम्नानुसार हैं:-

### Result

### Ph.D. in Microbiology

Sr. No.	ROLL NO	NAME OF STUDENT	Written Exam (Marks)	RESULT	Remarks
1	2113001	BHARTI AHIRWAR	70	QUALIFIED	
2	2113002	MANSI V SAHU	56	QUALIFIED	
3	2113003	RASHMI SINGH	ABSENT	NOT QUALIFIED	
4	2113004	TANIYA SAHU	48	NOT QUALIFIED	
5	2113005	NEHA TOPPO	74	QUALIFIED	
6	2113006	SULAGNA GHOSH BARMAN	62	QUALIFIED	
7	2113007	TWINKAL SHRIWAS	56	QUALIFIED	



Registrar

**HEMCHAND YADAV VISHWAVIDYALAYA, DURG (C.G.)**

**Ph.D. Coursework Examination - 2021**

**Answer Key**

**Subject :- Microbiology**

Q.N.	Ans.	Q.N.	Ans.	Q.N.	Ans.	Q.N.	Ans.	Q.N.	Ans.
1	B	11	D	21	A	31	C	41	A
2	B	12	D	22	C	32	A	42	B
3	C	13	A	23	A	33	C	43	D
4	A	14	C	24	B	34	B	44	A
5	C	15	D	25	B	35	A	45	C
6	D	16	D	26	B	36	C	46	A
7	C	17	B	27	A	37	D	47	C
8	A	18	A	28	A	38	A	48	B
9	D	19	B	29	विलोपित	39	A	49	B
10	C	20	D	30	B	40	B	50	A

प्रश्न क्र. 29 विलोपित, बोनस अंक प्रदत्त।



# **HEMCHAND YADAV VISHWAVIDYALAYA, DURG (C.G.)**

Ph.D. Course Work Examination 2021

**MICROBIOLOGY**

**PAPER - FIRST (PART-I)**

Research Methodology, Advanced Tools & Techniques, Quantitative Data Analyses &  
Computer Fundamentals

**&**

**PAPER - FIRST (PART-II)**

**RESEARCH AND PUBLICATION ETHICS (RPE)**

Time : Two Hours (For Part-I & Part-II)

Maximum Marks : (Part-I =70 + Part-II=30)=100

Note: - Answer all the questions. Each question carries 02 marks.

## **(Part-I)**

1. Blue Print of research work is known as-
  - a) Sampling Design
  - b) Research Design
  - c) Research Hypothesis
  - d) Research Approach
  
2. The data which are collected through internet called-
  - a) Internal secondary data
  - b) External secondary data
  - c) Documentary Sources
  - d) None of the above
  
3. Qualitative observation is usually done for the exploratory purposes, it is called----- observation -
  - a) Structural
  - b) Complete
  - c) Naturalistic
  - d) Probed

4. A set of principle to guide and assist researchers in deciding which goals are most important and in reconciling conflicting values when conducting research is called-
  - a) Research ethics
  - b) Deontological approach
  - c) Utilitarianism
  - d) None of the above
  
5. The following cannot be exploited by assigning or by licensing the rights to others-
  - a) Patent
  - b) Design
  - c) Trademarks
  - d) All of the above
  
6. Which of the following is a method of collecting primary data –
  - a) Observation method
  - b) Interview method
  - c) Questionnaires and schedule method
  - d) All of the above
  
7. Copying the work of other authors in whole pieces is called as –
  - a) Self Plagiarism
  - b) Indirect Plagiarism
  - c) Direct Plagiarism
  - d) Patch writing
  
8. In cyber law terminology DoS means –
  - a) Denial of service
  - b) Disc Operating system
  - c) Distant operator Service
  - d) None of these

9. Which of the following is not part of cyber space-
- a) Computer
  - b) Computer network
  - c) Website
  - d) Calculator
- 10 Copyright does not grant protection for –
- a) Anonymous work
  - b) pseudonymous work
  - c) Reproduced work
  - d) Jointly owned work
- 11.Negative staining is used for examining –
- a) Virus Particle
  - b) Protein molecule
  - c) Bacterial Flagella
  - d) All of above
- 12.Which of the following is used in electron microscope-
- a) Electron beams
  - b) Magnetic fields
  - c) Light waves
  - d) Electron beams and magnetic fields
- 13.If proteins are separated according to their electrophoretic mobility then the type of electrophoresis is –
- a) SDS PAGE
  - b) Affinity electrophoresis
  - c) Electro focusing
  - d) Free flow Electrophoresis

14. When is electrophoresis not used –
- a) Separation of Proteins
  - b) Separation of Amino acid
  - c) Separation of lipid
  - d) Separation of Nucleic acid
15. Which of the following is not a thermostable polymerase-
- a) pfu polymerase
  - b) Taq polymerase
  - c) Vent Polymerase
  - d) DNA polymerase III
16. How many DNA duplexes are obtained from one DNA duplex after 4 cycles of PCR –
- a) 8
  - b) 4
  - c) 32
  - d) 16
17. Single spacing in MS word document cause -----point line spacing –
- a) 10
  - b) 12
  - c) 14
  - d) 16
18. The minimum number of rows and columns in MS Word document is –
- a) 1 and 1
  - b) 2 and 1
  - c) 2 and 2
  - d) None of above

19. What is the shortcut key to split a table –

- a) Ctrl+Alt+Enter
- b) Ctrl+ Shift + Enter
- c) Alt + Shift + Enter
- d) Alt + space + Enter

20. How many types of deoxynucleoside triphosphate are used in Sanger sequencing -

- a) 1
- b) 2
- c) 3
- d) 4

21. The cathode of transmission electron microscope (TEM) consists of a -

- a) Tungsten wire
- b) Bulb
- c) Iron Filament
- d) Gold wire

22. MS Excel 2019 has maximum column width limit is of ----- characters -

- a) 256
- b) 592
- c) 255
- d) 128

23. Cleavage of peptide chain is done by –

- a) Trypsin
- b) Tyrosine
- c) Tryptophan
- d) Arginine

24. To move data from one part of the document to another following is used –

- a) Cut and delete
- b) Cut and Paste
- c) Copy and Paste
- d) Copy and Undo



25. The speed of migration of ions in electric field depends on –
- a) Shape and size of molecule
  - b) Magnitude of charge and shape of molecule
  - c) Magnitude of charge and shape and mass of molecule
  - d) Magnitude of charge and mass of molecule
26. Which type of charts can Excel produce –
- a) Line graphs and Pie charts only
  - b) Bar charts, line graphs and Pie charts
  - c) Bar charts and line graphs only
  - d) Only line graphs
27. Which of the following short cut key is used to start the slide show –
- a) Using F5 key
  - b) Using F3 key
  - c) Using F1 key
  - d) Using F6 key
28. Electron microscope can give a magnification upto –
- a) 400,000 X
  - b) 100,000 X
  - c) 15,000 X
  - d) 100 X
29. Guanine specific cleavage in Maxam Gilbert method is done by using
- a) Formic acid
  - b) Hydrazine
  - c) Dimethyl sulphate
  - d) Piperidine
30. The page to create presentation in power point is called –
- a) Sheet
  - b) Slide
  - c) Paper
  - d) Document

31. Text styling features of MS Word is-
- a) Word color
  - b) Word font
  - c) Word Art
  - d) Word fill
32. Nucleotide triphosphates ( dNTPs) are added to the growing DNA strand during the -----phase
- a) Extension/Elongation
  - b) Annealing
  - c) Denaturation
  - d) Preparation
33. Chi-square is used to analyse-
- a) Scores
  - b) Ranks
  - c) Frequencies
  - d) Any of these
34. When conducting an ANOVA, FDATA will always fall within what range-
- a) Between 0 and 1
  - b) Between 0 and infinity
  - c) Between negative infinity and infinity
  - d) Between 1 and infinity
35. According to the small size of the particle, which type of chromatographic separation is applicable –
- a) High Performance Liquid Chromatography (HPLC)
  - b) Fast protein Liquid Chromatography (FPLC)
  - c) Gel Chromatography
  - d) Paper Chromatography

## **(Part-II)**

- 36.** What is an ethics committee?
- (a)** People who like to talk a lot
  - (b)** A group of people who think about hypothetical research
  - (c)** A group of experienced people who will consider a research proposal and the degree to which ethical issues have been considered appropriately
  - (d)** A group of experienced people who are useful to draw on when writing a proposal as an optional extra
- 37.** Essential in ethics and ethical standards is:
- (a)** A good grasp of research methods.
  - (b)** The capacity to produce good research.
  - (c)** A good understanding of business.
  - (d)** The capacity to distinguish between right and wrong.
- 38.** A gatekeeper is:
- (a)** Any person or structure that controls access to people, places, structures and/or organizations.
  - (b)** A person in charge of a gate.
  - (c)** A security officer or guard.
  - (d)** A person who controls entrances and exits.
- 39.** The two important components of research responsibility are: sincerity in work and avoiding-
- (a)** Plagiarism
  - (b)** writing the thesis
  - (c)** Research techniques
  - (d)** Confidentiality
- 40.** In carrying out the research, the researcher should engage properly and thoroughly with:
- (a)** The media.
  - (b)** The literature on the topic.
  - (c)** Their peers.
  - (d)** Art and science.
- 41.** Ideally, the research participant's identity is not known to the researcher. This is called:
- (a)** Anonymity
  - (b)** Confidentiality
  - (c)** Deception
  - (d)** Desensitizing

- 42.** The use of deception in social research is-
- (a)** Illegal.
  - (b)** Permissible under certain conditions.
  - (c)** Methodologically unsound.
  - (d)** Rare because of federal ethical constraints on its use.
- 43.** Which of the following is a form of harm that might be suffered by research participants?
- (a)** Physical injury
  - (b)** Stress and anxiety
  - (c)** Impaired development
  - (d)** All of the above
- 44.** What do we advise as a good rule of thumb about sample size for group based quantitative projects?
- (a)** Aim to recruit 20 participants per condition of your design
  - (b)** Aim to recruit 20 participants per member of the group
  - (c)** Aim to recruit 100 participants per condition of your design
  - (d)** Aim to recruit 100 participants per member of the group
- 45.** Classification of all types of libraries has been made by-
- (a)** IFLA
  - (b)** UNISIST
  - (c)** UNESCO
  - (d)** INSDOC
- 46.** Which of the following is/are the potential benefits of using tools for testing?
- i). Reducing the repetitive work.
  - ii). Increasing consistency and repeatability.
  - iii). Over-reliance on the tool.
- (a)** i and ii only
  - (b)** ii and iii only
  - (c)** i and iii only
  - (d)** All i, ii and iii
- 47.** Urkund is a :-
- (a)** Writing tool
  - (b)** Grammar correction tool
  - (c)** Plagiarism checker
  - (d)** None

**48.** A hash function must meet criteria.

- (a)** Two
- (b)** Three
- (c)** Four
- (d)** None of the mentioned

**49.** How many types of indexes are there in sql server?

- (a)** 1
- (b)** 2
- (c)** 3
- (d)** 4

**50.** h- index ----- Measures quantity with quality by comparing publications to citations.

- (a)** True
- (b)** False
- (c)** Both
- (d)** None

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