

READ THIS FIRST

What this file is. A format template for the IGNOU MCSP-232 project report, built from section VI (Points to remember while preparing the project report) and section VII (Assessment guidelines) of the MCA_NEW Project Guidelines, July 2026 and January 2027 edition. For every chapter it tells you what to write, what the evaluator looks for, and gives an empty table you fill from your own project.

What this file is not. It contains no results, no test outcomes, no screens and no code. Those can only come from the software you build. The guidelines require the documentation to be "in respect of your project only" and say textbook theory should be avoided as far as possible (section VI, point 2). Copied work is referred to the Examination Discipline Committee (section VII, Unfair means).

- Size: documentation of about 100 to 125 pages, excluding coding (section VI, point 2).
- Print: A4, single line spacing, one side only; every page, table and figure numbered; every table and figure titled (point 3). No font or margin is prescribed.
- Title: identical to the approved synopsis on every page and on the certificate (points 5 and 10).
- Route: MCA_NEW (distance mode) posts one original bound copy with a CD to the Regional Director. MCAOL (Online) uploads a single PDF on the LMS and keeps the executable files for an online viva (MCAOL guidelines, July 2024 and January 2025).
- Square brackets [] mark what you must fill. Empty cells stay empty until your own work fills them.

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Prepared by BK Sahni for ignouproject.com, an independent service of Shri Chakradhar Publication Pvt. Ltd., New Delhi. Not affiliated with or endorsed by IGNOU. Checked against the July 2026 and January 2027 MCSP-232 guidelines on 05 October 2026.

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Part A. Binding Order

Section VI, point 1 lists what the report "should contain". The order below places those items first so an evaluator finds the approval papers at once. The guidelines do not fix the order of the front pages; they fix that each item is present.

No.	Item	Source in the guidelines	Watch
1	Cover page	Sample cover, p. 21	course code, title, name, enrolment no., guide, year
2	Original approved proforma and the approved project proposal (synopsis)	section VI 1(i); point 4	original, not a photocopy; evaluator's suggestions carried into the work
3	Bio-data of the guide, signed and dated	section VI 1(ii)	same guide as the proforma
4	Certificate of Originality, signed and dated by student and guide	section VI 1(iii); format p. 20	guide signature must match the proforma (point 5)
5	Acknowledgement (optional)	not listed	keep it short
6	Table of Contents with page numbers	section VI 2	page numbers must match
7	Chapters 1 to 10 (Part C)	section VI 2	about 100 to 125 pages, code excluded
8	Appendices, if any, and Glossary	section VI 2	number appendix pages too
9	CD with the executable file(s), fixed to the last page (MCA_NEW)	section VI 1(v); point 6	never sent separately; keep an identical CD for the viva

Section VI, point 1(iii) says the certificate format is "on Page 23". In the July 2026 edition the format is on page 20 (contents item X). Use page 20.

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Part B. Cover Page Layout (from p. 21)

MCSP-232
[TITLE OF THE PROJECT, exactly as approved]
by
[Student's Full Name]
Enrolment No: []
Under Guidance of
[Project Guide's Full Name]
Submitted to the School of Computer and Information Sciences, IGNOU in partial fulfilment of the requirements for the award of the degree
Master of Computer Applications (MCA)
[Year of Submission]
Indira Gandhi National Open University, Maidan Garhi, New Delhi 110068

The official sample places the IGNOU logo above the address. MCAOL learners write "MCA Project (MCSP-232)" at the top and "Master of Computer Applications (MCAOL)" as the degree line, as in the MCAOL sample cover.

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Part C. Chapter by Chapter

Chapter headings follow the list in section VI, point 2. The guidelines say each component "carries certain weightage in the project report evaluation", so none can be dropped.

Chapter 1. Introduction and Objectives

What to write: the organisation or users, the present system and its problems as you found them, the purpose of your system, and objectives that each map to a requirement and a test.

What the evaluator checks (section VII): whether the problem is real and the objectives are specific to your project.

Objective no.	Objective	Requirement IDs it maps to	Test case IDs that prove it
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]

Chapter 2. System Analysis

What to write: identification of need; project planning and scheduling with both a PERT chart and a Gantt chart; cost and effort estimation; the SRS; the software engineering paradigm you applied and why; and the data models your project needs (DFD, control flow, state or sequence, ER, class or CRC, collaboration, use case, activity).

What the evaluator checks (section VII): cost and effort by function point analysis or a similar method; PERT with proper decomposition of stages; Gantt with valid time and line structure; SRS that follows a standard such as IEEE and is not running text; for database projects an ER diagram with proper symbols and cardinality linked to the SRS, levelled DFDs (context, level 1, level 2) with proper inputs and outputs, and a data dictionary that explains every entity, relationship and data flow.

2.2 Planning shell

Activity ID	Activity	Predecessor	o	m	p	te	Start	End
[]	[]	[]	[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]	[]	[]	[]

$t_e = (o + 4m + p) / 6$ in weeks. Draw the PERT network and mark the critical path; draw the Gantt chart from the start and end columns.

2.2 Function point shell

Function type	Functions counted	Simple	Average	Complex	Points
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]

Rows: EI, EO, EQ, ILF, EIF. IFPUG weights (simple, average, complex): EI 3, 4, 6; EO 4, 5, 7; EQ 3, 4, 6; ILF 7, 10, 15; EIF 5, 7, 10. VAF = $0.65 + 0.01 \times (\text{sum of 14 GSC ratings, 0 to 5 each})$. Adjusted FP = UFP x VAF. Effort = adjusted FP x [hours per FP, with source]. State your own productivity figure and rate; IGNOU prescribes none.

2.3 SRS outline (structure after ISO/IEC/IEEE 29148:2018)

Part	Headings to fill
1 Introduction	purpose; scope; product perspective; definitions; references
2 Overall description	product functions; user classes and characteristics; operating environment; design and implementation constraints; assumptions and dependencies
3 Specific requirements	external interfaces (user, hardware, software, communication); functional requirements with IDs; performance; security; software quality attributes; database requirements
4 Verification	how each requirement will be verified (test, inspection, demonstration)
Appendices	traceability matrix: requirement ID to design element to test case ID

2.5 Data dictionary shell

Name	Type (entity, attribute, data flow, store)	Description	Data type and size	Used in (DFD process, table)
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

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Chapter 3. System Design

What to write: modularisation details; data integrity and constraints; database design; procedural or object oriented design; user interface design; and the test cases (unit and system) you designed before coding.

What the evaluator checks (section VII): proper modularisation and a specification of each module; tables normalised to at least 3NF; the referential diagram; entity integrity with keys, alternate keys, value constraints and ranges; procedural design as flowchart, pseudo code or PDL; UI coherent with the data flow, consistent naming, validation checks where needed; program architecture and why the data structures suit it.

3.1 Module specification shell

Module	Purpose	Inputs	Outputs	Tables used	Calls
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]

3.2 Keys and constraints shell

Table	Primary key	Alternate keys	Foreign keys (references)	Value constraints and ranges
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

3.3 Normalisation shell (one block per table group)

Step	Relation(s)	Dependency removed	Result
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]

Rows: UNF, 1NF, 2NF, 3NF. If you keep any table below 3NF on purpose, say which and why.

3.6 Test case design shell (written before coding)

Test case ID	Level (unit or system)	Requirement ID	Input or steps	Expected result
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

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Chapter 4. Coding

What to write: SQL commands or object descriptions for (i) creating the database with constraints, (ii) collecting, cleaning, generating and inserting data, and (iii) access rights for different users; then the complete project code with comments and a description of each segment. Code does not count toward the 100 to 125 pages.

What the evaluator checks (section VII): comments with functional description: input, output, calls to and from other functions, parameters, main variables, data types and logic.

Comment header to place above every function or method:

```
Function : [name]
Purpose : [what it does]
Input : [parameters and types]
Output : [return value and type]
Calls : [functions it calls]
Called by : [functions that call it]
Main vars : [name, type, role]
Logic : [two or three lines]
```

Chapter 5. Standardisation of the Coding

What to write: code efficiency; error handling; parameter calling and passing; validation checks.

What the evaluator checks (section VII): naming conventions for variables, functions and constants; nesting depth; exception handling and conditional checking; how parameter passing is done and how it optimises the code.

Screen or input	Field	Validation rule	Error message shown	Where enforced (client, server, database)
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

Chapter 6. Testing

What to write: testing techniques and strategies used; the testing plan; test reports for unit and system test cases; debugging and code improvement.

What the evaluator checks (section VII): not definitions copied from a book, but your test case designs, reports and results for unit, integration and system testing, how you debugged, and what you changed to improve the code; correctness, reliability, user friendliness, maintainability, efficiency and portability.

6.3 Test report shell (fill only after you run the tests)

Test case ID	Date run	Actual result	Status (pass or fail)	Defect ID	Fix and retest date
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]
[]	[]	[]	[]	[]	[]

Sentence frame: "Test case [ID] was run on [date]; the actual result was [], so the status is [pass / fail]. Defect [ID] was traced to [module, function] and fixed by [change]; the retest on [date] gave []." Write only what your own runs showed.

6.4 Debugging and improvement log shell

Defect ID	Symptom	Cause found	Change made	Effect measured
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

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Chapter 7. System Security Measures

What to write: database and data security; creation of user profiles and access rights.

What the evaluator checks (section VII): confidentiality, integrity and authorisation for your system; database-level security, use of views, GRANT and REVOKE, user and access rights; steps against hacking; the various levels of security you implemented.

Access rights matrix shell

Function or table	[Role 1]	[Role 2]	[Role 3]	[Role 4]
[]	[]	[]	[]	[]

Function or table	[Role 1]	[Role 2]	[Role 3]	[Role 4]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]
[]	[]	[]	[]	[]

Cells: C (create), R (read), U (update), D (delete) or blank. Then list the GRANT and REVOKE statements that enforce the matrix in the database.

Chapter 8. Reports and Screen Layouts

What to write: sample layouts of the reports your system generates, and the screens in a proper order.

What the evaluator checks (section VII): sample reports for ready reference; screen layouts or screenshots placed in order.

Report or screen ID	Name	Who uses it	Figure number in this report
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]
[]	[]	[]	[]

Chapter 9. Future Scope and Further Enhancement

What to write: what the system does not do yet and how it could be extended.

What the evaluator checks (section VII): that the future scope follows from your own limitations, not a generic list.

Chapter 10. Bibliography, Appendices and Glossary

What to write: every source you cited, in one consistent style; appendices if needed; a glossary of terms and abbreviations used.

What the evaluator checks (section VII): organisation of the report, page numbering and proper printout of text and images.

Term or abbreviation	Meaning in this project
[]	[]
[]	[]
[]	[]
[]	[]

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Part D. Before You Post or Upload

Section VI, point 4: a report received without the approved proforma in original, the synopsis, the guide's signed bio-data, the Certificate of Originality and the CD is "summarily rejected and returned to the student for compliance". Tick every line.

Check	MCA_NEW (distance mode)	MCAOL (Online)
Approved proforma in original	☐ bound in	☐ in the single PDF
Approved synopsis	☐ bound in	☐ in the PDF
Guide bio-data, signed and dated	☐ bound in	☐ in the PDF
Certificate of Originality, both signatures, guide signature matches proforma	☐	☐
Title identical everywhere	☐	☐
Evaluator's suggestions carried out	☐	☐
Executables	☐ CD fixed to the last page	☐ kept with you for the viva
Copies	☐ one original bound copy sent; one photocopy and an identical CD kept	☐ single PDF uploaded; soft copy and executables kept
How	☐ registered insured post to the Regional Director	☐ LMS link
Envelope label	☐ MCA PROJECT REPORT (MCSP-232)	not applicable
Window	☐ 1 Jul to 30 Sep or 1 Jan to 31 Mar, as your approval slot	same windows on the LMS

A photocopy of the report is not accepted for submission (point 7). Marks: report 150, viva 50, with 40 percent needed in each separately. At the viva you may be asked to run a demo and to write code for a problem; carry the report and the identical CD (MCA_NEW) or the executables (MCAOL).

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