

INDIAN MARITIME UNIVERSITY CHENNAI CAMPUS

PATTERN & BLUE PRINT BNA014 NAVIGATION I

Maximum Marks: 70

Time : 3 Hours.

Two Sections – Section **A** Terrestrial and Celestial Navigation
Section **B** Chart Work

Section **A** – 35 marks. **Six** questions.

Section **B** – 35 marks. **Four** questions. All questions are compulsory. Use Srilanka Chart.

BLUE PRINT: Section **A** : **Six** questions.

Earth	2 marks.
Parallel & Plane Sailing	5 marks. One question
Mercator Sailing	4 marks. One question
Day's Work	5 marks. One question
Concept of time	4 marks.
Celestial Sphere & Equinoctial	
System of coordinates	4 marks.
Horizon System	4 marks.
Sextant & Altitude Correction	5 marks. One question
Amplitude	2 marks. Balance two questions short

answer type with not more than 8 sub questions.

Section **B** : **Four** questions.

Chart Datum & Compass correction	12 marks. One question with not more than six sub questions.
Position & Position line definitions	8 marks. One question with not more than 4 sub questions.
Chart Work Plotting exercises – Two	10 marks & 5 marks each.

INDIAN MARITIME UNIVERSITY CHENNAI CAMPUS

QUESTION PAPER PATTERN & BLUE PRINT

BNA 015 NAVIGATION II

BRIDGE EQUIPMENTS, WATCH KEEPING, METEOROLOGY & OCEANOGRAPHY

MAXIMUM MARK : 100

TIME : 2 HOURS

QUESTION PAPER SHOULD HAVE TWO SECTIONS :

SECTION A: ANSWER ANY 4 QUESTIONS OUT OF 6, FOR A TOTAL OF 40 MARKS

SECTION B : ANSWER ANY 3 QUESTIONS OUT OF 4, FOR A TOTAL OF 30 MARKS

NOTE: TOTALLY ANSWER ONLY 7 QUESTIONS IN BOTH THE SECTIONS FOR 70 MARKS.

THE PASSING PERCENTAGE IS 40 % OVERALL IN BOTH SECTIONS.

BLUE PRINT

SECTION A: BRIDGE EQUIPMENTS AND WATCH KEEPING – 40 MARKS

BLOCK 1 : UNIT NO 1: NAVIGATIONAL AIDS : 20 MARKS - 2 QUESTIONS OF 10 MARKS EACH

UNIT NO 2: CONDUCT OF VESSELS IN SIGHT OF ONE ANOTHER & IN RESTRICTED VISIBILITY

(LIMITED TO RULES 1-8 AND 11-19):

20 MARKS - 2 QUESTIONS OF 10 MARKS EACH

UNIT NO 3: LIGHT SHAPES AND SOUND SIGNALS (RULE NO 23 – 31) :

20MARKS- 2 QUESTIONS OF 10 MARKS EACH.

SECTION B: METEOROLOGY AND OCENOGRAPHY - 30 MARKS

BLOCK 2 : UNIT NO 4 : METEOROLOGY : 30 MARKS - 4 QUESTIONS OF 10 MARKS EACH

INDIAN MARITIME UNIVERSITY
EXAMINATION PATTERN & BLUE PRINT
DNS SEMESTER I
BNA-016 SHIP OPERATIONS

Max Marks: 70

Time: 2 hours

Total No. of Questions : 9 (Each Carry 10 Marks)
To be Attempted : 7 (4 from Section I & 3 from Section II)
Compulsory : 2 (1 from Section I & 1 from Section II)

Section I:
Cargo Work 3 Theory + 1 Numerical (Compulsory)
Rope Work & Maintenance 1 Theory

Section II:
Stability - 1 Theory + 1 Numerical(Compulsory)
Ship Construction – 1 Theory
Safe Working - 1 Theory

Blue Print:

1. A)Types of merchant ships & Cargoes
B) Loading, unloading, segregation & Separation
2. Basic Cargo Works Terms definitions
3. A)Cargo Care – Ventillation procedures
B) Ship Care - Methods to prevent Corrosion
4. Care of Fibre and Wire Ropes
5. Numerical to calculate loadable qty of cargo by giving Stowage Factor, Load Density

Section II

6. Load Line marks sketch and description
7. Safe Working Practices
8. Ship Construction- Principal & Hull dimensions
9. Numerical to Calculate Deadweight Aboard, Available Cargo giving TPC, DWA and drafts

INDIAN MARITIME UNIVERSITY

DIPLOMA IN NAUTICAL SCIENCES

ENGLISH & HUMAN FACTORS

TIME: 120 minutes

Max Marks : 100

Rubrics: Attempt all questions.

Notes: Very Short Answer – includes Fill in the blanks, selection of right choice, Answer in one or two sentences.

Short Answer: writing paragraphs / Notes.

Application / Long answer: Comprehension passage, writing of letters, Essay type.

Unit / Topic	Very Short Answer	Short Answer	Application/Longer Answer	Total
Unit1 Eng Lang & Marine communication	2×2 marks	2×5 marks	1×10 marks	24
Unit 2 Shipping & special Needs	2×2	2×5	-----	14
Unit3 HF & Interpersonal Relationship	2×2	2×5	1×10	24
Unit4 Team Work & positive Attitude	2×2	2×5	-----	14
Unit5 Organisational Behaviour	2×2	2×5	1×10	24
Total	20	50	30	100

INDIAN MARITIME UNIVERSITY CHENNAI CAMPUS

QUESTION PAPER PATTERN & BLUE PRINT

BNA 022 NAVIGATION IV

ADVANCE BRIDGE EQUIPMENTS, WATCH KEEPING, METEOROLOGY & OCEANOGRAPHY

MAXIMUM MARK:100

TIME: 2 HOURS

QUESTION PAPER SHOULD HAVE TWO SECTIONS :

SECTION A:ANSWER ANY 4 QUESTIONS OUT OF6, FOR A TOTAL OF **40 MARKS**

SECTION B : ANSWER ANY 3 QUESTIONS OUT OF 4, FOR A TOTAL OF **30 MARKS**

NOTE: 1. TOTALLY ANSWER ONLY 6 QUESTIONS IN BOTH THE SECTIONS FOR **70 MARKS**.

THE PASSING PERCENTAGE IS 40 % OVERALL IN BOTH SECTIONS.

2. SHIP WEATHER CODE TABLES FOR CODING / DECODING IS TO BE PROVIDED BY THE INSTITUTE.

BLUE PRINT

SECTION A: BRIDGE EQUIPMENTS AND WATCH KEEPING – **40 MARKS**

BLOCK 1 : UNIT NO 1: BRIDGE EQUIPMENTS & NAVIGATIONAL AIDS : **15 MARKS**

1 QUESTIONS WITH SUB DIVISION A &B OF 7.5 MARKS EACH

UNIT NO 2: BRIDGE TEAM WORK & MANAGEMENT: **20 MARKS**

2 QUESTIONS OF 10 MARKS EACH

UNIT NO 3: WATCH KEEPING PRINCIPLES AND DUTIES :**15 MARKS**

1 QUESTION WITH SUB DIVISION A &B OF 7.5 MARKS EACH.

UNIT NO 4: COLLISION , SAFE SPEED AND REMEDIES : **5 MARKS**

1 SAQ OF 5 MARKS

UNIT NO 5: TRAFFIC SEPERATION SCHEMES AND NARROW CHANNELS – **5 MARKS**

1 SAQ OF 5 MARKS

SECTION B: METEOROLOGY AND OCEANOGRAPHY -30 MARKS

BLOCK 2: ENVIRONMENTAL SCIENCE

UNIT NO 6: CONDENSATION AND PRECIPITATION:**10 MARKS** - 1 QUESTION OF 10 MARK

UNIT NO 7:PRESSURE WINDS AND STORMS: **10 MARKS** – 1 QUESTION OF 10 MARK

UNIT NO 8: WEATHER REPORTING: **10 MARKS** - 1 QUESTION OF 10 MARK

UNIT NO 9: OCEANOGRAPHY: **10 MARKS** - 1 QUESTION OF 10 MARK

INDIAN MARITIME UNIVERSITY CHENNAI

DNS IInd SEMESTER

BNA023 CARGO HANDLING,STOWAGE, SEAMANSHIP II & SWP

Question Paper Pattern:

Maximum Marks: 70

Time : 2 Hours

Question paper consists of 2 Sections. Section **A** of 30 marks consists of only two questions – First question has 10 Sub questions each of 2 marks and Second question with 5 Sub questions each of 2 marks. Total marks $10 \times 2 + 5 \times 2 = 30$

Section **B** of 40 marks consists of 4 questions each with 2 sub questions i.e $4 \times 2 = 10$ questions. Marks = $(5+5) \times 4 = 40$.

Blue Print:

Section **A** Consists of 2 questions. Question No. 1 consists of:

- Tanker 4 Sub questions each question of 2marks
- Containers 2 Sub questions each of 2 marks
- Bulk Cargo 1 sub question of 2 marks
- Multipurpose 3 Sub question each of 2 marks

Question No. 2 consists of 5 sub questions on Safe Working Practices, each of 2 marks.

Section **B** Consists of 4 questions:

- Tanker – 2 Sub questions of 5 marks each i.e. $5 \times 2 = 10$
- Chemical/ Gas carrier 5 marks
- Containers 5 marks

Bulk carriers 2 sub questions of 5 marks each i.e. $5 \times 2 = 10$

- General cargo 5 marks
- Ro Ro Vessel 5 marks.

INDIAN MARITIME UNIVERSITY
EXAMINATION PATTERN & BLUE PRINT
DNS SEMESTER II
BNA-025 MARITIME HISTORY & COMMERCE

Max Marks: 100

Time: 2 hours

Total No. of Questions : 7 (Each Carry 20 Marks)
To be Attempted : 5 (1 Compulsory question)

Blue Print:

1. Significance of NMD (Compulsory Question)
2. Growth of Indian Shipping
3. Various types of ports (Manmade, Natural etc.,)
4. Types of trade – Liner, Tramping
5. Article of agreement & Role of Shipping Master
6. Various International Organizations relating to Maritime Industry
7. Relation between Charterer, Shipper etc.,