

**OPENNET – VI : Entrance Test for  
Diploma in Nautical Science leading to B.Sc. (Nautical Science)  
June, 2007**

*Total No. of Questions = 100*

*Time : 3 Hours*

- All questions are compulsory.
- Use of calculator is *not* allowed. Rough work may be done in the space provided at the back of the Test booklet.
- The Test booklet has the following 5 tests :

<b>Tests</b>	<b>No. of Questions</b>	<b>Marks</b>
I – Reasoning Aptitude	20	20
II – General Knowledge	20	20
III – Mathematics	20	20
IV – English	20	20
V – General Science	20	20

Read the instructions given on the OMR Answer Sheet carefully before you start.

## HOW TO FILL UP THE INFORMATION ON THE ENTRANCE TEST OMR ANSWER SHEET

While filling up the OMR Answer Sheet, you should follow the following guidelines :

1. Write your complete Roll Number. This should correspond to the roll number already supplied to you. Also write your correct name, address with pin code in the space provided, in ink. Put your signatures on the Answer Sheet with date, in ink. Ensure that the Invigilator in your examination hall also puts his signatures with date on the OMR Answer Sheet at the space provided. You should use HB pencil to mark the answers of the questions on the OMR Answer Sheet.
2. Do not make any stray marks on the OMR Answer Sheet.
3. Write correct information in numerical digits in Roll No., Programme Code, Date and Month and Examination Centre Code Columns. **The column of Course Code should be left blank.** The corresponding rectangle should be dark enough and should be filled in completely.
4. Each question is followed by four probable answers which are numbered 1, 2, 3 and 4. You should select and show only one answer to each question considered by you as the most appropriate or the correct answer. Select the most appropriate answer. Then by using HB pencil, blacken the rectangle bearing the correct answer number against the serial number of the question. **If you find that answer to any question is none of the four alternatives given under the question you should darken the rectangle '0'.**
5. If you wish to change your answer, ERASE completely the already darkened rectangle by using a good quality eraser and then blacken the rectangle bearing your revised answer number. If incorrect answer is not erased completely, smudges will be left on the erased rectangle and the question will be read as having two answers by the Optical Mark Reader (OMR) and will be ignored for giving any credit.
6. No credit will be given if more than one answer is given for one question. Therefore, you should select the most appropriate answer.
7. You should not spend too much time on any one question. If you find any particular question difficult, leave it and go to the next. If you have time left after answering all the questions, you may go back to the unanswered ones.
8. There is no negative marking for wrong answers.

## GENERAL INSTRUCTIONS

1. Mobile Phones, calculators, books, slide-rules, foot rulers, note-books or written notes, etc. are not allowed inside the examination hall.
2. You should follow the instructions given by the Centre Superintendent, observers and by the Invigilators at the examination venue. If you violate the instructions you will be disqualified.
3. Any candidate found copying or receiving or giving assistance in the examination will be disqualified.
4. The Test Booklet and the OMR Answer Sheet would be supplied to you by the Invigilators. **After the exam is over, you should hand over the Test Booklet and the OMR Answer Sheet to the Invigilator before leaving the examination hall.** Any candidate who does not return the Question Booklet and the OMR Answer Sheet will be disqualified.
5. Candidates arriving late will not be permitted to enter the examination hall. The reporting time is 9.15 A.M. The examination will start at 10.00 A.M. and will be over at 1.00 P.M.
6. All rough work is to be done on the test booklet itself and not on any other paper. Scrap paper is not permitted. For arriving at answers you may work in the margins, make some markings or underline in the test booklet itself.
7. The University reserves the right to cancel scores of any candidate who impersonates or uses malpractices. The examination is conducted under uniform conditions. The University would also follow a procedure to verify the validity of scores of all examinees uniformly. If there is substantial indication that your performance is not genuine, the University may cancel your score.

**TEST I**  
**REASONING APTITUDE**

1. If CAT is coded as 24, what will be the code number for BAT ?

(1) 32 (2) 21

(3) 23 (4) 42

2. In the series given below count each 9 which is preceded by 2 and not followed by 5. How many such 9's are there ?

2 9 5 5 9 5 2 2 9 5 7 2 9 1 5 9 2 7 2 9 5 2 2 9 4 1 9 5

(1) 1 (2) 2

(3) 3 (4) 4

3. The number of boys in a class is five times the number of girls. Which of the following numbers **cannot** represent the total number of children in the class ?

(1) 24 (2) 30

(3) 42 (4) 45

4.  $2 + 3 - 4 + 2 + 3 - 4 + 2 + 3 - 4 + \dots$

The sum of the 102 terms of the above series is

(1) 102 (2) 0

(3) 34 (4) 2

5. A man is facing north-west. He turns  $90^\circ$  in the clockwise direction and then  $135^\circ$  in the anticlockwise direction. Which direction is he facing now ?

(1) West

(2) East

(3) North-East

(4) South

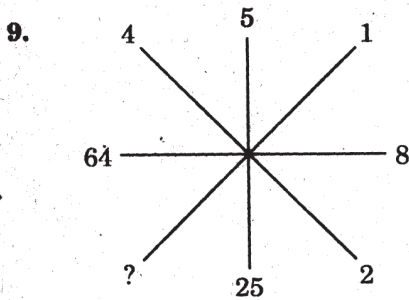
**Directions for Questions 6 – 8 :** Read the following information and answer the questions that follow.

From exactly seven people – R, S, T, U, X, Y and Z – a group of exactly four must be selected in accordance with the following conditions :

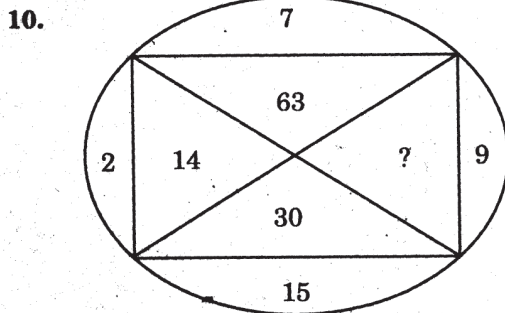
- (i) If R is selected, T must also be selected.
- (ii) If S is selected, U must also be selected.
- (iii) If X and Y are both selected together, T cannot be selected.

6. If X and Y are both selected together, which of the following must also be selected ?
- (1) R (2) S  
(3) U (4) Z
7. If S and Z are both selected, each of the following could also be selected *except*
- (1) R (2) T  
(3) U (4) X
8. If U is not selected, which of the following can be, but does *not* have to be, selected ?
- (1) R (2) S  
(3) T (4) X

**Directions for Questions 9 – 10 :** Find the missing number:



- (1) 0 (2) 1  
(3) 2 (4) 4



- (1) 33 (2) 145  
(3) 135 (4) 18

**Directions for Questions 11 – 14 :** Study the following information.

A blacksmith has five iron articles A, B, C, D and E, each having a different weight.

- (i) A weighs twice as much as B.
- (ii) B weighs four and a half times as much as C.
- (iii) C weighs half as much as D.
- (iv) D weighs half as much as E.
- (v) E weighs less than A but more than C.

11. Which of the following is the lightest in weight ?

- (1) A
- (2) B
- (3) C
- (4) D

12. E is lighter in weight than which of the other two articles ?

- (1) A, B
- (2) D, C
- (3) A, C
- (4) B, D

13. E is heavier than which of the following two articles ?

- (1) D, B
- (2) D, C
- (3) A, C
- (4) A, B

14. Which of the following articles is the heaviest ?

- (1) A
- (2) B
- (3) C
- (4) D

**Directions for Questions 15 – 16 :** Find the missing number in the series.

15. 3, 6, 18, 72, \_\_\_\_\_

- (1) 144
- (2) 216
- (3) 288
- (4) 360

16.  $\frac{2}{\sqrt{5}}, \frac{3}{5}, \frac{4}{5\sqrt{5}}, \frac{5}{25},$  \_\_\_\_\_

- (1)  $\frac{6}{5\sqrt{5}}$
- (2)  $\frac{6}{25\sqrt{5}}$
- (3)  $\frac{6}{125}$
- (4)  $\frac{7}{25}$

17. Choose the group which is different from the others.

- (1) 71, 7, 3, 17
- (2) 67, 71, 3, 5
- (3) 37, 14, 19, 7
- (4) 41, 5, 3, 47

**Directions for Questions 18 – 20 :** Answer the questions based on the following information.

- (i) Six persons – A, B, C, D, E and F – are sitting around a circular table facing the centre.
- (ii) C is sitting between A and F.
- (iii) B is sitting two places to the left of E.
- (iv) D is sitting two places to the right of F.

**18.** Between which two persons is D sitting ?

- (1) F, B
- (2) E, B
- (3) C, B
- (4) A, B

**19.** Who, among the following, is A's neighbour on his right ?

- (1) C
- (2) F
- (3) B
- (4) D

**20.** Between which two persons is F sitting ?

- (1) C, D
- (2) C, A
- (3) C, B
- (4) D, E