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Time : 1½ Hours**TELECOMMUNICATION
(NSQF)****Subject Code**

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Total No. of Questions : 4**(Printed Pages : 8)****Maximum Marks : 40**

- INSTRUCTIONS :** (i) Answer each question on a fresh page.
(ii) Write the question number and sub-question number clearly.
(iii) All questions are compulsory.
(iv) Figures to the right indicate full marks.

1. (A) Select and write the most appropriate alternative given below each statement and rewrite complete statement : 3
- (1) The 7 C's of effective communication "clear" indicates
- to use exact words and facts
 - to be clear about what you say
 - to use simple words
 - to use correct spelling and grammar
- (2) The component in the communication cycle which converts the readable data to unreadable data is
- Sender
 - Encoding
 - Channel
 - Decoding

(3) Identify the type of sentence :

“Wow! What a beautiful house.”

The sentence is

- Declarative sentence
- Imperative sentence
- Interrogative sentence
- Exclamatory sentence

(4) The example of non-verbal communication is

- Face to face communication
- Talking on the phone
- Body language
- Group discussion

(5) The ability to handle or minimize the physical and emotional effect of stress is

- Self-management
- Self-regulation
- Stress management
- Self-awareness

(6) The force that makes you complete work without others cheering you is

- Self-confidence
- Communication
- Self-motivation
- Self-esteem

(B) Answer the following questions in **2-3** sentences each : 4

- (1) Write any *two* importance of feedback.
- (2) List any *two* characteristics of a successful entrepreneur.

(C) Answer the following questions in *one* sentence each : 3

- (1) Define Multiplexing.
- (2) Give the term for the following sentence :
“The reduction in intensity of the light beam with respect to distance travelled through a transmission medium”
- (3) What do you understand by aerial cabling ?

2. (A) Do as directed : 3

- (1) Compare the co-ordination in first pair and complete the second pair :
 - (i) Striping : Stripper : : Cleaving :
 - (ii) LC connector : Ideal for high density connector : : SC connector :

- (2) Give single term for the following definition :
- (i) The change in direction of a wave passing from one medium to another.
- (ii) The process of permanently joining two fibers together.
- (3) Match the following items in column A with correct items in column B and write the correct pair :

Column 'A'

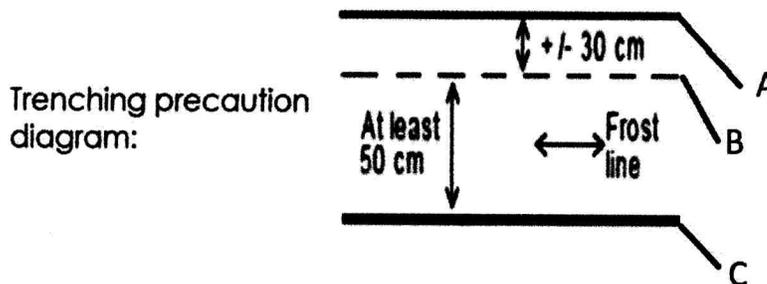
Column 'B'

- | | |
|---------------------|---|
| (i) Power meter | (a) used to cleave the optical fiber |
| (ii) Messenger wire | (b) used to test the optical fiber |
| | (c) used to prevent sagging optical fiber |
| | (d) used to harden an epoxy |

(B) Answer the following questions in **2-3** sentences each : 4

- (1) Mention the *three* steps followed for route inspection.
- (2) Explain the need and importance of splicing.

(C) Answer the following questions in one line based on the figure given below : 3



- (1) According to the trenching precaution diagram where is cable warning tape placed ?
- (2) What should be estimated the distance between soil and cable warning tape ?
- (3) What should be estimated the distance between cable warning tape and cable ?

3. (A) Select and write the most appropriate alternative given below each statement and rewrite complete statement : 3

(1) The need of a fiber optic inspection microscope is

- Used to cut fiber jacket/buffer tubes
- Used to clean up connectors
- Used to inspect connectors
- Used to cure epoxy polish connectors

(2) The proper order followed for visual connector inspection is

- (1) Observe the connector
 - (2) Clean the connector
 - (3) Inspect the connector
- (1), (2), (3)
 - (2), (3), (1)
 - (3), (1), (2)
 - (3), (2), (1)

(3) If you want the data in ascending or descending order, the option you would go for

- Text wrapping
- Sort and filter
- Header and footer
- Merge cells

(4) The shortcut keys used to cut a file is

- Ctrl + C
- Ctrl + X
- Ctrl + Z
- Ctrl + P

(5) Sneha created a file in Notepad and saved the file by name “hello” so the complete name of file will be

- hello.doc
- hello.docx
- hello.txt
- hello.jpg

(6) Press to select all files.

- Ctrl + S
- Ctrl + A
- Ctrl + D
- Ctrl + P

- (B) Answer the following questions in **2-3** sentences each : 4
- (1) Explain the functioning of an OTDR.
 - (2) State the difference between FC connector and ST connector.
- (C) Answer the following questions in *one* sentence each : 3
- (1) How is continuity check performed using visual fault locator ?
 - (2) Mention *one* precaution to be followed while using laser light.
 - (3) State *one* precaution taken during installation of OFC.
4. (A) Do as directed : 3
- (1) State the following whether true or false :
 - (i) Sustainable development is taking care of ourselves and the future generations.
 - (ii) The way to practice sustainable living at personal level is by plugging on device when not in use.
 - (2) Give single term for the following definition :
 - (i) The method of sending information from one place to another by sending pulses of light.
 - (ii) A passive device which terminates cables, allowing arbitrary connections to be made.

- (3) Match the following items in column A with correct items in column B and write the correct pair :

Column A

Column B

- | | |
|--------------------|--|
| (i) Blowing method | (a) used for straight duct route |
| (ii) VFL | (b) used for duct route with multiple bends |
| | (c) used to clean up fiber |
| | (d) used to detect the bends, fault in the fiber |

- (B) Answer the following questions in **2-3** sentences each : 4

- (1) Briefly write a note on Trenching process.
- (2) State the features of good connector design.

- (C) Answer the following questions in *one* sentence each : 3

- (1) How to make sure that each splice is a good splice ?
- (2) How will you address the environment storage issue of the cable drum ?
- (3) Why you must handle optical fiber carefully ?