

# National Testing Agency

**Question Paper Name :** PGQP53 24th Sep 2021 Shift 2  
**Subject Name :** PGQP53  
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## PGQP53

**Group Number :** 1  
**Group Id :** 864351345  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 120  
**Show Attended Group? :** No  
**Edit Attended Group? :** No  
**Break time :** 0  
**Group Marks :** 400  
**Is this Group for Examiner? :** No

## PART A - General

**Section Id :** 8643511234  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional :** Mandatory

<b>Number of Questions :</b>	25
<b>Number of Questions to be attempted :</b>	25
<b>Section Marks :</b>	100
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	8643511467
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 86435130230 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Select the correct option :

You may feel relieved when something bad \_\_\_\_\_.

1. happens
2. does not happen
3. is remembered
4. occurs

**Options :**

864351105371. 1

864351105372. 2

864351105373. 3

864351105374. 4

**Question Number : 2 Question Id : 86435130231 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Select the most suitable synonym :

BARBARIAN

1. impolite
2. unkind
3. uncivilized
4. unlikeness

**Options :**

864351105375. 1

864351105376. 2

864351105377. 3

864351105378. 4

**Question Number : 3 Question Id : 86435130232 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is the closest meaning of the phrase *to be hard of hearing* ?

1. deaf
2. deaf and dumb
3. careless
4. arrogant

**Options :**

864351105379. 1

864351105380. 2

864351105381. 3

864351105382. 4

**Question Number : 4 Question Id : 86435130233 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Identify the meaning of the idiom from the options given :

In black and white

1. useless
2. in short
3. in writing
4. in full swing

**Options :**

864351105383. 1

864351105384. 2

864351105385. 3

864351105386. 4

**Question Number : 5 Question Id : 86435130234 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Select the most suitable antonym :

RAPTURE

1. despair
2. elation
3. ecstasy
4. hell

**Options :**

864351105387. 1

864351105388. 2

864351105389. 3

864351105390. 4

**Question Number : 6 Question Id : 86435130235 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Complete the second sentence by selecting the appropriate option :

One way to improve your health is to eat more fruit and vegetables.  
Alternatively \_\_\_\_\_ .

1. you could fall ill
2. you could go on diet
3. you could exercise more
4. you could increase risk of your heart disease

**Options :**

- 864351105391. 1
- 864351105392. 2
- 864351105393. 3
- 864351105394. 4

**Question Number : 7 Question Id : 86435130236 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Fill in the blank with right word :

An employee might be given a privilege as a form of \_\_\_\_\_ .

1. punishment
2. reward
3. increment
4. commendation

**Options :**

- 864351105395. 1
- 864351105396. 2
- 864351105397. 3
- 864351105398. 4

**Question Number : 8 Question Id : 86435130237 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Select the correct option for use of 'the' :

1. the Delhi
2. the city of Delhi
3. the southern India
4. the long island

**Options :**

864351105399. 1

864351105400. 2

864351105401. 3

864351105402. 4

**Question Number : 9 Question Id : 86435130238 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Fill in the blank with correct preposition :

I am worried \_\_\_\_\_ exam.

1. on
2. in
3. about
4. of

**Options :**

864351105403. 1

864351105404. 2

864351105405. 3

864351105406. 4

**Question Number : 10 Question Id : 86435130239 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Identify the meaning of the idiom from the options given :

Hit the road

1. end the journey
2. an accident
3. begin the journey
4. happy times

**Options :**

864351105407. 1

864351105408. 2

864351105409. 3

864351105410. 4

**Question Number : 11 Question Id : 86435130240 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What will come in place of the question mark (?) in the expression?

$$4003 \times 77 - 21015 = ? \times 116$$

1. 2467
2. 2476
3. 2477
4. 2478

**Options :**

864351105411. 1

864351105412. 2

864351105413. 3

864351105414. 4

**Question Number : 12 Question Id : 86435130241 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R :

**Assertion A** : For making statues, we are using bronze.

**Reason R** : Through the mixing of copper and tin, we produce bronze.

In the light of the above statements, choose the *most appropriate answer* from the options given below.

1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not correct
4. **A** is not correct but **R** is correct

**Options :**

864351105415. 1

864351105416. 2

864351105417. 3

864351105418. 4

**Question Number : 13 Question Id : 86435130242 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The sum of five numbers is 260. The average of the first two numbers is 30 and the average of the last two numbers is 70. What is the third number?

1. 40
2. 50
3. 55
4. 60

**Options :**

864351105419. 1

864351105420. 2



864351105421. 3

864351105422. 4

**Question Number : 14 Question Id : 86435130243 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Thirty-six workers can finish a piece of work in 14 days. If the work is to be completed in 8 days, how many extra workers are required?

1. 20
2. 23
3. 27
4. 29

**Options :**

864351105423. 1

864351105424. 2

864351105425. 3

864351105426. 4

**Question Number : 15 Question Id : 86435130244 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What should come in the blank space in the following number series?

0, 2, \_\_\_\_\_, 18, 32, 50

1. 5
2. 6
3. 7
4. 8

**Options :**

864351105427. 1

864351105428. 2

864351105429. 3

864351105430. 4

**Question Number : 16 Question Id : 86435130245 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Three of the following four are alike in certain way based on the English alphabetical series and so form a group. Which is the one that does not belong to that group?

1. WXST
2. HCDE
3. QRMN
4. IJEF

**Options :**

864351105431. 1

864351105432. 2

864351105433. 3

864351105434. 4

**Question Number : 17 Question Id : 86435130246 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If every alternate Saturdays and all Sundays are holidays in a 30 days month beginning on Saturday, then how many working days are there in that month?

1. 21
2. 22
3. 23
4. 24

**Options :**

864351105435. 1

864351105436. 2

864351105437. 3

864351105438. 4

**Question Number : 18 Question Id : 86435130247 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Pointing to a woman in the photograph, Neetu said, "Her son's father is the son-in-law of my mother". How is Neetu related to the woman?

1. Mother
2. Sister
3. Aunt
4. Mother-in-law

**Options :**

864351105439. 1

864351105440. 2

864351105441. 3

864351105442. 4

**Question Number : 19 Question Id : 86435130248 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Suneeta travelled 5 km towards east direction. She turned right and went for 3 km. Then she turned west and travelled for 1 km. How far is she from the starting point?

1. 3 km
2. 5 km
3. 9 km
4. 10 km

**Options :**

864351105443. 1

864351105444. 2

864351105445. 3

864351105446. 4

**Question Number : 20 Question Id : 86435130249 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In a certain code, TEMPORAL is written as OLDSMBSP. How is CONSIDER written in that code?

1. RMNBSFEJ
2. BNMRSFEJ
3. RMNBJEFS
4. TOPDQDCH

**Options :**

864351105447. 1

864351105448. 2

864351105449. 3

864351105450. 4

**Question Number : 21 Question Id : 86435130250 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Whose creations are *Harshacharita* and *Kadambari*?

1. Kalhana
2. Panini
3. Banabhatta
4. Patanjali

**Options :**

864351105451. 1

864351105452. 2

864351105453. 3

864351105454. 4

**Question Number : 22 Question Id : 86435130251 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Present-day Istanbul in Turkey was earlier known as

1. Ankara
2. Ottoman
3. Constantinople
4. Byzantine

**Options :**

864351105455. 1

864351105456. 2

864351105457. 3

864351105458. 4

**Question Number : 23 Question Id : 86435130252 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Space X is

1. an Indian autogiant
2. a movie on space
3. name of a spy agency
4. an American private space company

**Options :**

864351105459. 1

864351105460. 2

864351105461. 3

864351105462. 4

**Question Number : 24 Question Id : 86435130253 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

UN day is celebrated on

1. 26th November
2. 24th November
3. 26th October
4. 24th October

**Options :**

864351105463. 1

864351105464. 2

864351105465. 3

864351105466. 4

**Question Number : 25 Question Id : 86435130254 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The famous novel, *Middlemarch* was written by

1. George Eliot
2. William Wordsworth
3. William Shakespeare
4. Ruskin Bond

**Options :**

864351105467. 1

864351105468. 2

864351105469. 3

864351105470. 4

## PART B - EMBEDDED AND REAL TIME SYSTEMS ENGG.

Section Id :	8643511235
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	75
Number of Questions to be attempted :	75
Section Marks :	300
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511468
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 86435130255 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The advantage of write (copy) back data cache organization over write through organization is

1. Main memory consistency
2. Write allocate on write miss
3. Less memory bandwidth requirement
4. Higher capacity

Options :

864351105471. 1

864351105472. 2

864351105473. 3

864351105474. 4

**Question Number : 27 Question Id : 86435130256 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

EEPROM storage element is

1. cross-coupled latch
2. isolated gate transistor
3. capacitor
4. flip-flop

**Options :**

864351105475. 1

864351105476. 2

864351105477. 3

864351105478. 4

**Question Number : 28 Question Id : 86435130257 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The 8-bit DAC produces 1.0V for a digital input of 00110010. What is the largest output it can produce?

1. 5 V
2. -5 V
3. 5.5 V
4. 5.10 V

**Options :**

864351105479. 1

864351105480. 2

864351105481. 3



864351105482. 4

**Question Number : 29 Question Id : 86435130258 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which type of memory has fast erase and write times?

1. EPROM
2. EEPROM
3. Flash memory
4. None of these

**Options :**

864351105483. 1

864351105484. 2

864351105485. 3

864351105486. 4

**Question Number : 30 Question Id : 86435130259 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Microprogramming refers to

1. Programming for microcontroller
2. Programming at micro-level
3. Emulation
4. Array processing

**Options :**

864351105487. 1

864351105488. 2

864351105489. 3

864351105490. 4

**Question Number : 31 Question Id : 86435130260 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

An array processor is a \_\_\_\_\_ machine.

1. SIMD
2. MIMD
3. SISD
4. MISD

**Options :**

864351105491. 1

864351105492. 2

864351105493. 3

864351105494. 4

**Question Number : 32 Question Id : 86435130261 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

\_\_\_\_\_ machines tend to make use of internal resources of the processor, a rich set of registers and a pipelined organization.

1. CISC
2. RISC
3. Array processing
4. Parallel processor

**Options :**

864351105495. 1

864351105496. 2

864351105497. 3

864351105498. 4

**Question Number : 33 Question Id : 86435130262 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The difference between a switch and Hub is that

1. hub avoids broadcast
2. switch avoids flooding
3. Both are same
4. None of these

**Options :**

864351105499. 1

864351105500. 2

864351105501. 3

864351105502. 4

**Question Number : 34 Question Id : 86435130263 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

RS-232 interface

1. uses only positive voltage
2. cannot transmit signal over long distance
3. uses only negative voltage
4. is a logic high uses positive voltage

**Options :**

864351105503. 1

864351105504. 2

864351105505. 3

864351105506. 4

**Question Number : 35 Question Id : 86435130264 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Digital signal processors use a complete architecture derived from

1. Harvard architecture
2. Cray architecture
3. Von Neumann architecture
4. None of these

**Options :**

864351105507. 1

864351105508. 2

864351105509. 3

864351105510. 4

**Question Number : 36 Question Id : 86435130265 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

A programming having features such as data abstraction, encapsulation and data hiding, polymorphism, inheritance is called

1. Structured programming
2. Object-oriented programming
3. Open-source programming
4. Real time programming

**Options :**

864351105511. 1

864351105512. 2

864351105513. 3

864351105514. 4

**Question Number : 37 Question Id : 86435130266 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The ethernet protocol uses

1. CSMA/CA
2. CSMA/CD
3. SCPC
4. Slotted ALOHA

**Options :**

864351105515. 1

864351105516. 2

864351105517. 3

864351105518. 4

**Question Number : 38 Question Id : 86435130267 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

A microcontroller differs from a microprocessor in terms of

1. I/O interfaces and instruction decoding
2. memory configuration and I/O interfaces
3. data bus width and clock speed
4. memory configuration and instruction decoding

**Options :**

864351105519. 1

864351105520. 2

864351105521. 3

864351105522. 4

**Question Number : 39 Question Id : 86435130268 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which is the correct order of different process steps for a typical FPGA design?

1. Functional simulation, Synthesis, Place and route, Timing verification
2. Functional simulation, Timing verification, Synthesis, Place and route
3. Timing verification, Synthesis, Functional simulation, Place and route
4. Synthesis, Functional simulation, Timing verification, Place and route

**Options :**

864351105523. 1

864351105524. 2

864351105525. 3

864351105526. 4

**Question Number : 40 Question Id : 86435130269 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The theoretical dividing line between reduced instruction set computing (RISC) microprocessor and complex instruction set computing (CISC) microprocessor is

1. instruction execution rate to be one instruction per clock cycle
2. number of addresses and data lines
3. number of pins in the chip
4. None of these

**Options :**

864351105527. 1

864351105528. 2

864351105529. 3

864351105530. 4

**Question Number : 41 Question Id : 86435130270 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following technologies results in least power dissipation?

1. CMOS
2. ECL
3. TTL
4. NMOS

**Options :**

864351105531. 1

864351105532. 2

864351105533. 3

864351105534. 4

**Question Number : 42 Question Id : 86435130271 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is the lowest level of abstraction for representation of a digital system?

1. VHDL / Verilog
2. GDS II
3. Gate level netlist
4. System C

**Options :**



864351105535. 1

864351105536. 2

864351105537. 3

864351105538. 4

**Question Number : 43 Question Id : 86435130272 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

A run-time stack cannot be used in a round robin scheduling system because of the \_\_\_\_\_ nature of scheduling.

1. last in first out (LIFO)
2. first in first out (FIFO)
3. first in last out (FILO)
4. last in last out (LILO)

**Options :**

864351105539. 1

864351105540. 2

864351105541. 3

864351105542. 4

**Question Number : 44 Question Id : 86435130273 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



The following code will implement a \_\_\_\_\_.

```
Process (CLK, d) begin
  If (CLK='1') then
    Q<=d;
  endif;
end process
```

1. positive edge triggered D flip-flop
2. negative edge triggered D flip-flop
3. a latch
4. None of these

**Options :**

864351105543. 1

864351105544. 2

864351105545. 3

864351105546. 4

**Question Number : 45 Question Id : 86435130274 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In a real-time system, the simplest scheme that allows the operating system to allocate memory to two processes simultaneously is \_\_\_\_\_ .

1. overlays
2. pipelines
3. swapping
4. None of these

**Options :**

864351105547. 1

864351105548. 2

864351105549. 3

864351105550. 4

**Question Number : 46 Question Id : 86435130275 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The process of imitating one system with another so that the imitating system accepts the same data, executes same programs and achieves same results as the imitated system is known as

1. simulation
2. modification
3. translation
4. emulation

**Options :**

864351105551. 1

864351105552. 2

864351105553. 3

864351105554. 4

**Question Number : 47 Question Id : 86435130276 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

When using a sequential code to design a combinational logic in VHDL, if complete truth table is not defined, the synthesis tool will implement a \_\_\_\_\_ which is not required.

1. clock-buffer
2. buffer
3. flip-flop
4. latch

**Options :**

864351105555. 1

864351105556. 2

864351105557. 3

864351105558. 4

**Question Number : 48 Question Id : 86435130277 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Find the period of the machine cycle if 11.0592 MHz crystal is used in 8051 based system.

1. 1.085  $\mu$ s
2. 1.805  $\mu$ s
3. 2.085  $\mu$ s
4. 2.805  $\mu$ s

**Options :**

864351105559. 1

864351105560. 2

864351105561. 3

864351105562. 4

**Question Number : 49 Question Id : 86435130278 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

At what address does the 8051 wake up upon applying power to it?

1. 0000<sub>H</sub>
2. FFFF<sub>H</sub>
3. 1010<sub>H</sub>
4. Any memory location

**Options :**

864351105563. 1

864351105564. 2

864351105565. 3

864351105566. 4

**Question Number : 50 Question Id : 86435130279 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which design allows the reuse of the software and the hardware components?

1. Memory design
2. Input design
3. Peripheral design
4. Platform-based design

**Options :**

864351105567. 1

864351105568. 2

864351105569. 3

864351105570. 4

**Question Number : 51 Question Id : 86435130280 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What does API stand for?

1. Application Programming Interface
2. Address Programming Interface
3. Accessing peripheral through the interface
4. None of these

**Options :**

864351105571. 1

864351105572. 2

864351105573. 3

864351105574. 4

**Question Number : 52 Question Id : 86435130281 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What does FRIDGE stand for?

1. Floating-point programming design environment
2. Fixed-point programming design environment
3. Floating-point programming decoding
4. Fixed-point programming decoding

**Options :**

864351105575. 1

864351105576. 2

864351105577. 3

864351105578. 4

**Question Number : 53 Question Id : 86435130282 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which design can be used to reduce the energy consumption of the embedded system?

1. Simulator
2. Emulator
3. Compiler
4. Debugger

**Options :**

864351105579. 1

864351105580. 2

864351105581. 3

864351105582. 4

**Question Number : 54 Question Id : 86435130283 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is also known as loader?

1. Linker
2. Locator
3. Assembler
4. Compiler

**Options :**

864351105583. 1

864351105584. 2

864351105585. 3

864351105586. 4

**Question Number : 55 Question Id : 86435130284 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How many types of wait statements are available in the VHDL design?

1. 3
2. 4
3. 5
4. 6

**Options :**

864351105587. 1

864351105588. 2

864351105589. 3

864351105590. 4

**Question Number : 56 Question Id : 86435130285 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is standardized as IEEE 1364?

1. C++
2. C
3. Verilog
4. FORTRAN

**Options :**

864351105591. 1

864351105592. 2

864351105593. 3

864351105594. 4

**Question Number : 57 Question Id : 86435130286 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What supports multitasking in 80386?

1. External paging memory management unit
2. Read mode
3. On-chip paging memory management unit
4. Paging and segmentation

**Options :**

864351105595. 1

864351105596. 2

864351105597. 3

864351105598. 4



**Question Number : 58 Question Id : 86435130287 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

When the microcontroller executes some arithmetic operations, then the flag bits of which register are affected?

1. PSW
2. SP
3. DPTR
4. PC

**Options :**

864351105599. 1

864351105600. 2

864351105601. 3

864351105602. 4

**Question Number : 59 Question Id : 86435130288 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Why is the speed accessibility of external data memory slower than internal on-chip RAM?

1. Due to multiplexing of higher order byte of address-data bus
2. Due to multiplexing of lower order byte of address-data bus
3. Due to demultiplexing of lower order byte of address-data bus
4. Due to demultiplexing of higher order byte of address-data bus

**Options :**

864351105603. 1

864351105604. 2

864351105605. 3

864351105606. 4



**Question Number : 60 Question Id : 86435130289 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which flags represent the least significant bit (LSB) and most significant bit (MSB) of Program Status Word (PSW) respectively?

1. Parity Flag & Carry Flag
2. Parity Flag & Auxiliary Carry Flag
3. Carry Flag & Overflow Flag
4. Carry Flag & Auxiliary Carry Flag

**Options :**

864351105607. 1

864351105608. 2

864351105609. 3

864351105610. 4

**Question Number : 61 Question Id : 86435130290 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which among the registers stated below does not belong to the category of special function registers?

1. TCON & TMOD
2. TH0 & TL0
3. P0 & P1
4. SP & PC

**Options :**

864351105611. 1

864351105612. 2

864351105613. 3

864351105614. 4

**Question Number : 62 Question Id : 86435130291 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which port does not represent quasi-bidirectional nature of I/O ports in accordance to the pin configuration of 8051 microcontroller?

1. Port 1 (Pins 1–8)
2. Port 0 (Pins 32–39)
3. Port 2 (Pins 21–28)
4. Port 3 (Pins 10–17)

**Options :**

864351105615. 1

864351105616. 2

864351105617. 3

864351105618. 4

**Question Number : 63 Question Id : 86435130292 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What happens when the pins of port 0 & port 2 are switched to internal ADDR and ADDR / DATA bus respectively while accessing an external memory?

1. Ports start sinking more current than sourcing
2. Ports cannot be further used as high impedance input
3. Ports cannot be used as general-purpose Inputs/Outputs
4. All of these

**Options :**

864351105619. 1

864351105620. 2

864351105621. 3

864351105622. 4

**Question Number : 64 Question Id : 86435130293 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Consider the following statements. Which of them is/are correct in case of program execution related to program memory?

- A. External program memory execution takes place from 1000H through 0FFFFH only when the status of EA pin is high (1)
- B. External program memory execution takes place from 0000H through 0FFFFH only when the status of EA pin is low (0)
- C. Internal Program execution occurs from 0000H through 0FFFFH only when the status of EA pin is held low (0)
- D. Internal program memory execution occurs from 0000H through 0FFFFH only when EA pin is held high (1)

- 1. A and C
- 2. B and D
- 3. A and B
- 4. only A

**Options :**

864351105623. 1

864351105624. 2

864351105625. 3

864351105626. 4

**Question Number : 65 Question Id : 86435130294 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which kind of multiplexing scheme is adopted by Von-Newman architecture especially for program and data fetching purposes?

1. Time Division Multiplexing
2. Frequency Division Multiplexing
3. Statistical Time Division Multiplexing
4. Code Division Multiplexing

**Options :**

864351105627. 1

864351105628. 2

864351105629. 3

864351105630. 4

**Question Number : 66 Question Id : 86435130295 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which scheduling, certain amount of CPU time is allocated to each process?

1. Earliest deadline first scheduling
2. Proportional share scheduling
3. Equal share scheduling
4. None of the above

**Options :**

864351105631. 1

864351105632. 2

864351105633. 3

864351105634. 4

**Question Number : 67 Question Id : 86435130296 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

✓ The Hardware mechanism that enables a device to notify the CPU is called \_\_\_\_\_.

1. polling
2. interrupt
3. system call
4. None of these

**Options :**

864351105635. 1

864351105636. 2

864351105637. 3

864351105638. 4

**Question Number : 68 Question Id : 86435130297 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The kernel keeps track of the state of each task by using a data structure called \_\_\_\_\_.

1. process control block
2. user control block
3. memory control block
4. None of these

**Options :**

864351105639. 1

864351105640. 2

864351105641. 3

864351105642. 4

**Question Number : 69 Question Id : 86435130298 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the Address (SFR) for TCON, SCON, SBUF, PCON and PSW respectively?

1. 88H, 98H, 99H, 87H, 0D0H
2. 98H, 99H, 87H, 88H, 0D0H
3. 0D0H, 87H, 88H, 99H, 98H
4. 87H, 88H, 0D0H, 98H, 99H

**Options :**

864351105643. 1

864351105644. 2

864351105645. 3

864351105646. 4

**Question Number : 70 Question Id : 86435130299 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In 8279 strobed input mode, the control line goes low. The data on return lines is strobed in the \_\_\_\_.

1. FIFO byte by byte
2. FILO byte by byte
3. LIFO byte by byte
4. LILO byte by byte

**Options :**

864351105647. 1

864351105648. 2

864351105649. 3

864351105650. 4

**Question Number : 71 Question Id : 86435130300 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**



**Correct Marks : 4 Wrong Marks : 1**

Which of the following statements on DRAM are correct?

- A. Page mode read operation is faster than RAS read.
  - B. RAS input remains active during column address strobe.
  - C. The row and column addresses are strobed into the internal buffers using RAS and CAS inputs respectively.
1. A and C
  2. A and B
  3. C
  4. All of these

**Options :**

864351105651. 1

864351105652. 2

864351105653. 3

864351105654. 4

**Question Number : 72 Question Id : 86435130301 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The coprocessors operate in \_\_\_\_\_ with a processor on the same buses and with the same instruction \_\_\_\_\_.

1. Parallel, byte stream
2. Series, byte stream
3. Series, bit stream
4. Parallel, bit stream

**Options :**

864351105655. 1

864351105656. 2

864351105657. 3

864351105658. 4

**Question Number : 73 Question Id : 86435130302 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

ACALL instruction allows specifying \_\_\_\_\_ address in the instruction and calling subroutine within \_\_\_\_\_ program memory block.

1. 2 byte, 3 K
2. 11 bit, 2 K
3. 9 bit, 2 K
4. 1 byte, 3 K

**Options :**

- 864351105659. 1
- 864351105660. 2
- 864351105661. 3
- 864351105662. 4

**Question Number : 74 Question Id : 86435130303 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following instructions is wrong?

1. INC DPTR
2. MOV @DPTR, A
3. MOV A, @A+DPTR
4. DEC DPTR

**Options :**

- 864351105663. 1
- 864351105664. 2
- 864351105665. 3
- 864351105666. 4



**Question Number : 75 Question Id : 86435130304 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the function of watchdog timer?

1. The watchdog timer is an external timer that resets the system if the software fails to operate properly
2. The watchdog timer is an internal timer that sets the system if the software fails to operate properly
3. The watchdog timer is an internal timer that resets the system if the software fails to operate properly
4. None of these

**Options :**

864351105667. 1

864351105668. 2

864351105669. 3

864351105670. 4

**Question Number : 76 Question Id : 86435130305 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In serial communication modes, mode 1 the Baud rate is

1.  $BR=2SMOD/32 * (\text{Timer 0 over flow rate})$
2.  $BR=2SMOD/16 * (\text{Timer 1 over flow rate})$
3.  $BR=2SMOD/16 * (\text{Timer 0 over flow rate})$
4.  $BR=2SMOD/32 * (\text{Timer 1 over flow rate})$

**Options :**

864351105671. 1

864351105672. 2

864351105673. 3

864351105674. 4

**Question Number : 77 Question Id : 86435130306 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which bit of TMOD will exactly configure timer / counter as a timer or counter?

- A. TMOD.6 of C/T for timer 1
- B. TMOD.6 of C/T for timer 0
- C. TMOD.2 of C/T for timer 0
- D. TMOD.2 of C/T for timer 1

- 1. A and B
- 2. B and D
- 3. A and C
- 4. C and D

**Options :**

864351105675. 1

864351105676. 2

864351105677. 3

864351105678. 4

**Question Number : 78 Question Id : 86435130307 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The main importance of ARM micro-processors is providing operation with

- 1. Low-cost and low-power consumption
- 2. Higher degree of multi-tasking
- 3. Lower error or glitches
- 4. Efficient memory management

**Options :**

864351105679. 1

864351105680. 2

864351105681. 3

864351105682. 4

**Question Number : 79 Question Id : 86435130308 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The additional duplicate registers used in ARM machines are called as

1. Copied-registers
2. Banked registers
3. Extra registers
4. Extential registers

**Options :**

864351105683. 1

864351105684. 2

864351105685. 3

864351105686. 4

**Question Number : 80 Question Id : 86435130309 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which technology is standardized in DRAM for determining the maximum time interval between the refresh cycles?

1. IEEE
2. RAPID
3. JEDEC
4. UNESCO

**Options :**

864351105687. 1

864351105688. 2

864351105689. 3

864351105690. 4

**Question Number : 81 Question Id : 86435130310 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which are the two lines used in the I2C?

1. SDA and SPDR
2. SPDR and SCL
3. SDA and SCL
4. SCL and status line

**Options :**

864351105691. 1

864351105692. 2

864351105693. 3

864351105694. 4

**Question Number : 82 Question Id : 86435130311 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following can implement the message passing and control?

1. Application software
2. Operating system
3. Software
4. Kernel

**Options :**

864351105695. 1

864351105696. 2

864351105697. 3

864351105698. 4

**Question Number : 83 Question Id : 86435130312 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Both the CISC and RISC architectures have been developed to reduce the \_\_\_\_\_.

1. cost
2. time delay
3. semantic gap
4. None of the above

**Options :**

864351105699. 1

864351105700. 2

864351105701. 3

864351105702. 4

**Question Number : 84 Question Id : 86435130313 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The status of the pending interrupts is checked at

1. the end of main program
2. the end of all the interrupts executed
3. the beginning of every interrupt
4. the end of each instruction cycle

**Options :**

864351105703. 1

864351105704. 2

864351105705. 3

864351105706. 4

**Question Number : 85 Question Id : 86435130314 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which architecture involves both the volatile and the non-volatile memory?

1. Harvard architecture
2. Von Neumann architecture
3. None of the above
4. All of these

**Options :**

864351105707. 1

864351105708. 2

864351105709. 3

864351105710. 4

**Question Number : 86 Question Id : 86435130315 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Write the full form of CISC and RISC.

1. Complete Instruction Set Computer, Reduced Instruction Set Computer
2. Complex Instruction Set Computer, Reduced Instruction Set Computer
3. Complex Instruction Set Computer, Reliable Instruction Set Computer
4. Complete Instruction Set Computer, Reliable Instruction Set Computer

**Options :**



864351105711. 1

864351105712. 2

864351105713. 3

864351105714. 4

**Question Number : 87 Question Id : 86435130316 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Find the number of times the following loop will be executed.

```
MOV R6,#200
BACK:MOV R5,#100
HERE:DJNZ R5, HERE
DJNZ R6,BACK
END
```

1. 100
2. 200
3. 2000
4. 20000

**Options :**

864351105715. 1

864351105716. 2

864351105717. 3

864351105718. 4

**Question Number : 88 Question Id : 86435130317 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



If the data transmission takes place in either direction, but at a time data may be transmitted only in one direction, then it is of

1. simplex mode
2. duplex mode
3. semi-duplex mode
4. half-duplex mode

**Options :**

864351105719. 1

864351105720. 2

864351105721. 3

864351105722. 4

**Question Number : 89 Question Id : 86435130318 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The bit packet that commands the device either to receive data or transmit data in transmission of USB asynchronous communication is

1. Handshake packet
2. Token packet
3. PRE packet
4. Data packet

**Options :**

864351105723. 1

864351105724. 2

864351105725. 3

864351105726. 4

**Question Number : 90 Question Id : 86435130319 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In 8051, an external interrupt 1 vector address is of \_\_\_\_\_ and causes of interrupt if \_\_\_\_\_.

1. 000BH, a high to low transition on pin INT1
2. 001BH, a low to high transition on pin INT1
3. 0013H, a high to low transition on pin INT1
4. 0023H, a low to high transition on pin INT1

**Options :**

864351105727. 1

864351105728. 2

864351105729. 3

864351105730. 4

**Question Number : 91 Question Id : 86435130320 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The main objective in building the multi-microprocessor is

1. greater throughput
2. enhanced fault tolerance
3. greater throughput and enhanced fault tolerance
4. None of these

**Options :**

864351105731. 1

864351105732. 2

864351105733. 3

864351105734. 4

**Question Number : 92 Question Id : 86435130321 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

A distributed operating system must provide a mechanism for

1. intraprocessor communication
2. intraprocess and intraprocessor communication
3. interprocess and interprocessor communication
4. interprocessor communication

**Options :**

864351105735. 1

864351105736. 2

864351105737. 3

864351105738. 4

**Question Number : 93 Question Id : 86435130322 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not a stage of pipeline of a RISC processor?

1. Read registers and decode the instructions
2. Fetch instructions from registers
3. Write result into a register
4. Access an operand in data memory

**Options :**

864351105739. 1

864351105740. 2

864351105741. 3

864351105742. 4

**Question Number : 94 Question Id : 86435130323 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The reason for which the RISC processor goes to idle state (or stall) is

1. delay in reading information from memory
2. poor instruction set design
3. dependencies between instructions
4. All of these

**Options :**

864351105743. 1

864351105744. 2

864351105745. 3

864351105746. 4

**Question Number : 95 Question Id : 86435130324 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is true while executing data transfer instructions?

1. Program counter is not accessible
2. Restricted bit-transfer operations are allowed
3. Both operands can be direct / indirect register operands
4. All of these

**Options :**

864351105747. 1

864351105748. 2

864351105749. 3

864351105750. 4

**Question Number : 96 Question Id : 86435130325 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which of these addressing modes, a constant is specified in the instruction after the opcode byte?

1. Register instructions
2. Register specific instructions
3. Direct addressing
4. Immediate mode

**Options :**

864351105751. 1

864351105752. 2

864351105753. 3

864351105754. 4

**Question Number : 97 Question Id : 86435130326 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The minimum duration of the active low interrupt pulse in 8051 for being sensed without being lost must be

1. greater than one machine cycle
2. equal to one machine cycle
3. greater than two machine cycles
4. equal to two machine cycles

**Options :**

864351105755. 1

864351105756. 2

864351105757. 3

864351105758. 4

**Question Number : 98 Question Id : 86435130327 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The 8051 microcontroller enters into power down mode when

1. SMOD bit of PCON is set
2. GF1 bit of PCON is set
3. PD bit of PCON is set
4. GF2 bit of PCON is set

**Options :**

864351105759. 1

864351105760. 2

864351105761. 3

864351105762. 4

**Question Number : 99 Question Id : 86435130328 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How much Program Memory does the Arduino UNO have?

1. 2 K bytes
2. 24 K bytes
3. 32 K bytes
4. 256 K bytes

**Options :**

864351105763. 1

864351105764. 2

864351105765. 3

864351105766. 4

**Question Number : 100 Question Id : 86435130329 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



Which activity is concerned with identifying the task at the final embedded systems?

1. High-level transformation
2. Compilation
3. Scheduling
4. Task-level concurrency management

**Options :**

864351105767. 1

864351105768. 2

864351105769. 3

864351105770. 4