

Form No. Ex- 8

Sl. No.....

Particulars about the candidate and the subject are **checked thoroughly** and corrected where necessary.



CENTRE CODE :.....

Invigilator

Signature of Officer-in-Charge

**KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY**

**BCA 4<sup>th</sup> Sem. Examination, 2014**

**Computer Organization**

**Paper - 11**

Time : 3 Hrs. Full Marks : 80

Enrolment Number

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Medium of Answer :

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Que. No.	Marks
1.	
2.	
3. a	
3. b	
3. c	
3. d	
3. e	
3. f	
3. g	
4. a	
4. b	
4. c	
5. a	
5. b	
5. c	
<b>Total</b>	

**INSTRUCTIONS TO CANDIDATES**

**302[BCA(S4) 11]**

1. This booklet contains.....24.... Pages numbering....23...Please verify number of pages in the booklet before answering.
2. An Examinee is allowed to bring only Admission Card and Identity Card to the Examination Hall. Any Examinee found in possession of loose papers, books etc. is liable to be Expelled.
3. Enrolment No. and Medium of answer must be written legibly at the specified places. Examinee's name and any other identifying mark which reveals examinees identity shall not be written anywhere in the script.
4. For Making calculations, only the last page provided for rough work shall be used.
5. No pages of the script be torn out .
6. Calculators will not be allowed for making calculations in the examination hall. **MOBILE PHONES are strictly prohibited in the examination Centre.**
7. No candidate will be allowed to leave or go out of the hall during the First hour of the Examination.
8. A candidate having completed his/her answer, the script must be handed over, to an invigilator before leaving the hall.
9. Contravention of any of the instructions mentioned above shall render a candidate liable for disciplinary action as per regulations of the University.

Examiner's Signature : \_\_\_\_\_

Examiner's Full Name : \_\_\_\_\_

Scrutiniser's Signature : \_\_\_\_\_

Scrutiniser's Full Name : \_\_\_\_\_

Head Examiner's Signature : \_\_\_\_\_

1. Answer any eight from the following questions

1×8 = 8

- (a) Which logic circuit you will use in case of subtraction of three binary bits?
- (b) In a decoder, if it has 2<sup>nd</sup> output lines how many input lines will be there?
- (c) What is the number of address and data lines for a memory of 4k × 16?
- (d) Mention the name of the four fields that are found in an assembly language instruction.
- (e) Define the term 'interface'.
- (f) What is an interrupt?
- (g) In which type of memory cell a refresh circuitry is required?
- (h) What are L1 cache and L2 cache?
- (i) What is latency time in case of a magnetic disk?
- (i) Mention the name of any four registers that are belongs to the control and status registers.

Ques. No.	Mark
1	
2	
3	
3.a	
3.b	
3.c	
3.d	
3.e	
3.f	
3.g	
3.h	
3.i	
3.j	
3.k	
3.l	
3.m	
3.n	
3.o	
3.p	
3.q	
3.r	
3.s	
3.t	
3.u	
3.v	
3.w	
3.x	
3.y	
3.z	
Total	

2. Answer any eight from the following questions

2×8 = 16

- (a) Why we used multiplexer?
- (b) What is called racing?
- (c) What is addressing mode?
- (d) List two merits of DRAM over SRAM.
- (e) What is assembler? Write one name of an assembler.
- (f) What is a pipeline hazard?
- (g) List two differences between CDROM and DVD.
- (h) What is Hit ratio?
- (i) What do you mean by Synchronous counter?
- (j) What are the three levels of programming languages?

3. Answer any five from the following questions

4×5 = 20

- (a) What is instruction cycle? Explain.
- (b) What is the difference between programmed I/O and interrupt driven I/O?
- (c) What is memory hierarchy? Discuss.
- (d) Differentiate between physical and virtual memory.
- (e) What is Pipeline hazard?
- (f) Draw block diagram of a half adder.
- (g) List the major types of magnetic storage.

4. Answer any two from the following questions

8×2 = 16

- (a) Explain the working principles of DMA.
- (b) Explain block diagram of a control unit.
- (c) Draw a MODE 8 counter and explain its working principle.

5. Answer any two from the following questions

10×2 = 20

- (a) What are the basic components of CPU? Explain structure of IAS computer.
- (b) Explain different types of mapping techniques used in cache memory.
- (c) Explain different types of instructions of 8085 microprocessors.